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Hon. Commissioner of Patents and Trademarks,
Washington, D.C. 20231

SIR:

CERTIFIED TRANSLATION

I, Hirotaka WATANUKI, am an official translator of the Japanese language into the English language and I hereby certify that the attached comprises an accurate translation into English of Japanese Application No. 2002-205434, filed on July 15, 2002.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United states Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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[List of Documents Attached]

[Name of Document] Specification 1

[Name of Document]	Drawings	1
[Name of Document]	Abstract	1
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[Name of Document] SPECIFICATION

[Title of the Invention] VIDEO PROGRAM PRODUCTION SYSTEM, COMPOSITION TABLE PROVIDING APPARATUS, TERMINAL, TERMINAL PROCESSING METHOD, PROGRAM, AND RECORDING MEDIUM

[Name of Document] CLAIMS

[Claim 1] A video program production system comprising a composition table providing apparatus, and a plurality of terminals communicable with the composition table providing apparatus,

wherein the composition table providing apparatus comprises: storage means for storing composition table data where items required for production of a video program are provided and a variety of information is described, and

control means providing, for viewing, the composition table data to each of the terminals, and processing information inputting from each of the terminals to the composition table data; and

wherein the terminal comprises:

acquisition means for acquiring the composition table data by communicating with the composition table providing apparatus,

display control means for causing a predetermined display to display the composition table data acquired by the acquisition means,

input information generating means for generating

information to be inputted to a predetermined item of the composition table data, and

input information transmitting means for transmitting the input information to the composition table providing apparatus.

[Claim 2] A composition table providing apparatus comprising: storage means for storing composition table data where items required for a production of a video program and a variety of information is described, and

control means for providing, for viewing, the composition table data to each of communicable terminals and processing information inputting from each of the terminals to the composition table data.

[Claim 3] A terminal comprising:

acquisition means for acquiring composition table data by communicating with a composition table providing apparatus that provides the composition table data where items required for a production of a video program and a variety of information is described,

display control means for causing a predetermined display to display the composition table data acquired by the acquisition means,

input information generating means for generating input information to a predetermined item of the composition table data, and

input information transmitting means for transmitting the input information to the composition table providing apparatus.

[Claim 4] The terminal according to claim 3, further comprising composition table transmitting means for generating the composition table data including the items required for the production of the video program, and transmitting the composition table data to the composition table providing apparatus.

[Claim 5] The terminal according to claim 3, wherein the input information generating means generates the input information to an item relating to one of a material gathering instruction and a production instruction in the composition table data.

[Claim 6] The terminal according to claim 3, wherein the input information generating means generates the input information to an item relating to one of a material gathering and a production in the composition table data.

[Claim 7] The terminal according to claim 3, wherein the input information generating means generates the input information to an item relating to one of a content of a video gathered or produced, and a content of an audio gathered or produced, in the composition table data.

[Claim 8] The terminal according to claim 3, wherein the input information generating means generates the input

information to an item relating to editing of the composition table data.

[Claim 9] The terminal according to claim 3, wherein the acquisition means acquires only information of a part of the item of the composition table data.

[Claim 10] A terminal processing method comprising:

an acquisition step of acquiring, from a composition table providing apparatus, composition table data where items required for a production of a video program is provided and a variety of information is described,

a display step of causing a predetermined display to display the acquired composition table data,

an input information generating step of generating information to be inputted to a predetermined item of the composition table data, and

a transmitting step of transmitting the generated input information to the composition table providing apparatus.

[Claim 11] The terminal processing method according to claim 10, further comprising a composition table generating step of generating the composition table data including the items required for the production of the video program, and transmitting the composition table data to the composition table providing apparatus.

[Claim 12] The terminal processing method according to claim 10, wherein the input information generating step

comprises generating the input information to an item relating to one of a material gathering instruction and a production instruction in the composition table data, as the input information.

[Claim 13] The terminal processing method according to claim 10, wherein the input information generating step comprises generating the input information to an item relating to one of a material gathering and a production in the composition table data, as the input information.

[Claim 14] The terminal processing method according to claim 10, wherein the input information generating step comprises generating the input information to an item relating to one of a content of a video gathered or produced, and a content of an audio gathered or produced, in the composition table data, as the input information.

[Claim 15] The terminal processing method according to claim 10, wherein the input information generating step comprises generating the input information to an item relating to editing of the composition table data, as the input information.

[Claim 16] The terminal processing method according to claim 10, wherein the acquisition step comprises acquiring only information relating to a part of the items of the composition table data when the composition table data is acquired from the composition table providing apparatus.

[Claim 17] A program for causing an information processing apparatus to perform a process, the process comprising:

an acquisition step of acquiring, from a composition table providing apparatus, composition table data where items required for a production of a video program is provided and a variety of information is described,

a display step of causing a predetermined display to display the acquired composition table data,

an input information generating step of generating input information to a predetermined item of the composition table data, and

a transmitting step of transmitting the generated input information to the composition table providing apparatus.

[Claim 18] The program according to claim 17, further generating the composition table data including the items required for the production of the video program, and transmitting the composition table data to the composition table providing apparatus.

[Claim 19] The program according to claim 17, wherein the input information generating process for generating the input information to an item relating to one of a material gathering instruction and a production instruction in the composition table data is performed, as the input information.

[Claim 20] The program according to claim 17, wherein the

input information generating process for generating the input information to an item relating to one of a material gathering and a production in the composition table data is performed, as the input information.

[Claim 21] The program according to claim 17, wherein the input information generating process for generating the input information to an item relating to one of a content of a video gathered or produced, and a content of an audio gathered or produced, in the composition table data is performed, as the input information.

[Claim 22] The program according to claim 17, wherein the input information generating process for generating the input information to an item relating to editing in the composition table data is performed, as the input information.

[Claim 23] The program according to claim 17, wherein the acquisition process for acquiring only information relating to a part of the items of the composition table data when the composition table data is acquired from the composition table providing apparatus.

[Claim 24] A recording medium storing a program for causing an information processing apparatus to perform a process, the process comprising:

an acquisition step of acquiring, from a composition table providing apparatus, composition table data where

items required for a production of a video program is provided and a variety of information is described,

a display step of causing a predetermined display to display the acquired composition table data,

an input information generating step of generating input information to a predetermined item of the composition table data, and

a transmitting step of transmitting the generated input information to the composition table providing apparatus.

[Claim 25] The recording medium according to claim 24, wherein the program causes an information processing apparatus to perform a process, the process further comprises a composition table data generating step of generating the composition table data including the items required for the production of the video program, and a transmitting step for transmitting the composition table data to the composition table providing apparatus.

[Claim 26] The recording medium according to claim 24, wherein the program causes the information processing apparatus to perform the process of generating the input information to an item relating to one of a material gathering instruction and a production instruction, in the composition table data as the input information.

[Claim 27] The recording medium according to claim 24, wherein the program causes the information processing

apparatus to perform the process of generating the input information to an item relating to one of a material gathering and a production in the composition table data as the input information.

[Claim 28] The recording medium according to claim 24, wherein the program causes the information processing apparatus to perform the process of generating the input information to an item relating to one of a content of a video gathered or produced, and a content of an audio gathered or produced, in the composition table data as the input information.

[Claim 29] The recording medium according to claim 24, wherein the program causes the information processing apparatus to perform the process of generating the input information to an item relating to editing of the composition table data as the input information.

[Claim 30] The recording medium according to claim 24, wherein the program causes the information processing apparatus to perform the process of acquiring only information relating to a part of the items of the composition table data when the composition table data is acquired from the composition table providing apparatus.

[Detailed Description of the Invention]

[0001]

[Technical Field]

The present invention relates to a video program production system appropriate for producing a broadcasting program in a television broadcasting station, a composition table providing apparatus and terminals forming the system, a terminal processing method of the terminal, a program for the terminal processing method, and a recording medium storing the program.

[0002]

[Related Art]

In broadcasting stations and production companies, groups (staff) performing a variety of jobs while staying in close contact with each other in a production of television programs and video contents (hereinafter video works of those are referred to as a video program) have to respectively proceed necessary jobs.

[0003]

Fig. 14 illustrates a work flow for a video program production. The job content of each group is briefly shown in the figure. Broken arrows represent a request of job from one group to another to perform a job, provision for information, a notification, provision of produced materials, and the like.

[0004]

When a video program is produced, a planning and composition group develops a concept, plans a program, and

studies and discusses the content of the program, and then finalizes the composition of the program.

Based on the plan and composition, the plan and composition group sends a project book to each group, and issues job instructions.

The work groups include a material gathering group, an office work group, an equipment group, an information group, a speech group, a CG (computer graphics) / SI (superimpose) group, an editing group, a performer group, a material group, a storage group, etc.

[0005]

The material gathering group gathers materials in response to instructions. The group prepares for a material gathering operation, and requests the office work group to perform required procedures and paper work. The material gathering group also requests the material group to prepare equipment for preliminary inspection.

The office work group performs paper work for material gathering procedure, material gathering permit, arrangement for business trip, and contracts.

The equipment group procures equipment required for the preliminary inspection for the material gathering.

The material gathering group performs the preliminary inspection after the material gathering procedure and the procurement of the equipment are complete. The material

gathering group transfers information collected in the preliminary inspection and a video obtained on a trial basis to the planning and composition group.

[0006]

The information group studies information relating to the video program to be produced, and reports the information to the planning and composition group.

The speech group produces a speech draft, and submits the speech draft to the planning and composition group.

The CG/SI group analyses the content of a video required for the video program to be produced, and produces trial data to be checked in computer graphics and superimposing. The CG/SI group transfers the data to the planning and composition group.

The editing group analyzes the content of the video program to be produced, and produces an edit instruction sheet.

The performer group analyzes the content of performance required for the video program to be produced, and designs a required plan of casting of performers and anchorman, and transfers the plan to the planning and composition group.

The material group studies video materials and music, tentatively procures the video materials and music, and transfers the procured video materials and music to the planning and composition group.

[0007]

The planning and composition group studies and confirms information, materials, video, music, etc. supplied from the other groups. The planning and composition group issues instructions to each group in accordance with the study results as necessary.

The speech group produces a speech sheet, and transfers the speech sheet to the material gathering group.

The material gathering group receives equipment for a real material gathering operation from the equipment group, and performs the real material gathering operation together with performers planned by the performer group. Video and audio data captured in the real material gathering operation are transferred to the planning and composition group.

The planning and composition group checks the content of the material gathering operation by performing off-line editing and pre-viewing, and transfers the gathered material to the editing group.

[0008]

The CG/SI group produces final data for computer graphics and superimposing, and transfers the final data to the editing group.

The performer group records a narration, and transfers data of the narration to the editing group.

The material group selects and modifies the material

video to be inserted into the video program, and music such as BGM (background music), and transfers the material video and the music data to the editing group.

After finally modifying the edit instruction sheet, the editing group performs an editing operation in accordance with the editing instruction sheet using the captured video, CG/SI, material video, music, and narration supplied from each group, and completes the video program.

The planning and composition group finally checks the video program as a complete packet (completion).

[0009]

The video and audio data obtained in the material gathering operation is transferred to the storage group for storage as video/audio document.

The video program as the complete packet is transferred to the storage group for storage.

[0010]

[Problems to be Solved by the Invention]

The above-referenced work flow is one example only, and in practice, more detailed jobs are performed. It is understood that each group thus performs jobs in cooperation with other groups with reference to the progress of the other groups.

Ideally, each group performs required jobs in a flexible manner while keeping close contact with the other

groups to keep status information of the other group updated.

However, it is difficult to exchange detailed progress reports with each other among the groups, and the exchanging of the detailed progress reports increases burden on each group, thereby degrading work efficiency.

Requests and documents between the groups are exchanged in the form of paper documents.

Accordingly, group-to-group communications shown in Fig. 14 are performed at the moment each job step is completed.

Therefore, delayed job in one group easily affects the progress of another group, and a content of instructions and requests are difficult to correct and modify.

That is, it is extremely difficult to cause a number of work groups to perform the jobs thereof efficiently in cooperation.

[0011]

The instructions from the planning and composition group are issued in the form of paper documents.

For example, the material gathering group gather materials and takes video in accordance with scenarios, scripts, and storyboard. The CG/SI group produces computer graphics in accordance with these documents. Similarly, the material group selects document video and music in accordance with the instruction sheet.

The concept of the project is difficult to convey in

writing, and the material gathering and production satisfying the concept of the project are difficult.

Further, it tends to be necessary to perform the material gathering and production again thereby causing the delay of the video program production with ease.

The instructions themselves are difficult to correct and modify.

[0012]

In the editing operation, arranging the video content, captured in the material gathering operation, in order, is not so easy, and performing the editing operation in alignment with the concept of the project is not so easy. The instructions are issued in writing, and the content of the video taking performed by the material gathering group is described in hand-written memo. It is therefore not easy to identify a location in a scenario or a script corresponding to a good scene and a good cut.

[0013]

That is, performing the jobs in an efficient manner with the groups cooperating with each other is difficult in the known video program production. Each group has difficulty in properly performing jobs in response to requests from the other groups with the concept of the project maintained in alignment.

A slight correction and modification are not easy to

undergo in the plan and composition.

[0014]

[Means for Solving the Problems]

Accordingly, it is an object of the present invention to allow a video program to be produced by a plurality of groups performing variety of works in an efficient manner and to allow a material gathering process and an editing process in the video program production to be easily and properly performed in alignment with a concept of a project of the video program production.

[0015]

A video program production system of the present invention includes a composition table providing apparatus, and a plurality of terminals communicable with the composition table providing apparatus.

Each of the composition table providing apparatus in the video program production system of the present invention and the composition table providing apparatus of the present invention includes storage means for storing composition table data containing items required for a production of a video program and a variety of information described, and control means for providing, for viewing, the composition table data to each of the terminals and processing information inputting from each of the terminals to the composition table data.

Each of the terminals in the video program production system and the terminal of the present invention includes acquisition means for acquiring the composition table data by communicating with the composition table providing apparatus, display control means for causing a predetermined display to display the composition table data acquired by the acquisition means, input information generating means for generating input information to a predetermined item of the composition table data, and input information transmitting means for transmitting the input information to the composition table providing apparatus.

[0016]

The terminal further includes composition table transmitting means for generating the composition table data including the items required for the production of the video program, and transmitting the composition table data to the composition table providing apparatus.

The input information generating means generates the input information to an item relating to one of a material gathering instruction and a production instruction, in the composition table data in the terminal.

The input information generating means generates the input information to an item relating to one of a material gathering and production, in the composition table data.

The input information generating means generates the

input information to an item relating to one of a content of a video gathered or produced, and a content of an audio gathered or produced, in the composition table data.

The input information generating means generates the input information to an item relating to editing of the composition table data.

The acquisition means acquires only information relating to a part of the items of the composition table data in the terminal.

[0017]

A terminal processing method of the present invention includes acquiring, from a composition table providing apparatus, composition table data containing items required for a production of a video program and a variety of information described, causing a predetermined display to display the acquired composition table data, generating input information to be inputted to a predetermined item of the composition table data, and transmitting the generated input information to the composition table providing apparatus.

The terminal processing method further includes generating the composition table data including the items required for the production of the video program, and transmitting the composition table data to the composition table providing apparatus.

Input information is generated for an item relating to one of a material gathering instruction and a production instruction in the composition table data as the input information.

Input information is generated for an item relating to one of a material gathering and a production in the composition table data as the input information.

Input information is generated for an item relating to one of a content of a video gathered or produced, and a content of an audio gathered or produced, in the composition table data as the input information.

Input information is generated for an item relating to editing of the composition table data as the input information.

Only information relating to a part of the items of the composition table data is acquired when the composition table data is acquired from the composition table providing apparatus.

[0018]

A program according to the present invention is a program causing the information processing apparatus to perform the terminal processing method.

A recording medium according to the present invention is a recording medium where the aforementioned program is recorded.

[0019]

In accordance with the present invention, the composition table providing apparatus supplies each terminal for viewing with the composition table data where items required for the production of the video program are provided and the variety of information is described. Each of the terminals namely each work group can proceed necessary work on the basis of a content that can be viewed with the composition table data that is, for example, instruction of the work or the result of work of another group. Further, the result of work is transmitted an input information to the composition table data.

That is, each group can know the status of the other groups by viewing the composition table data, and proceeding status, a content of the video, and the like can be confirmed. Accordingly, the work can be proceeded flexibly corresponding to the status of the other groups.

[0020]

[Best Mode for Carrying Out the Invention]

The embodiments of the present invention are described in the order of the list below.

1. Video program production system
2. Production procedure
3. Structure of server
4. Structure of terminal

5. Structure of image pickup device

6. Composition table

7. Function of each element

8. Example of access to the composition table

9. Production job using the composition table

[0021]

1. Video program production system

Fig. 1 illustrates the structure of a video program production system of the embodiment of the present invention.

The video program production system basically includes a composition table site 3, and a variety of terminals connected to the composition table site 3 via a network 7. The network 7 can be a public communication line, a satellite communication line, or a dedicated line.

[0022]

As shown in Fig. 1, the terminals include an information processing apparatus (personal computer) 4 for a planning and composition group, an information processing apparatus 5 for a production group, an information processing apparatus 6 for an editing group, and an image pickup device 1 and a field PC (personal computer) 2 for a material gathering group, for example.

The field PC 2 of the material gathering group can be, for example, a mobile information processing apparatus (such as a personal computer or a PDA (personal digital

assistant)). The image pickup device 1 having communication function serves as a communication terminal linked with the outside via the network 7.

Each of the terminals (1-6) gains access to the composition table site 3 via the network 7, thereby acquiring or transmitting information.

[0023]

As previously discussed with reference to Fig. 14, the work groups for the video program production include a planning and composition group, a material gathering group, an office work group, an equipment group, an information group, a speech group, a CG/SI group, an editing group, a performer group, a material group, a storage group, etc.

For simplicity of explanation, Fig. 1 illustrates the terminals (1-6) of only the planning and composition group, the material gathering group, a production group, and the editing group. Each of the other groups, not shown, is also equally equipped with terminals thereof, such as information processing apparatuses, and gain access to the composition table site 3 via the network 7 is also applicable.

The production groups of Fig. 1, including the CG/SI group, the performer (narration) group, and the material group, produce a video and audio for use in a video program besides, for example, the material group.

In the explanation of the present example, accessing of

the terminals (1-6) of the planning and composition group, the material gathering group, the production group, and the editing groups to the composition table site 3 is mainly described. The other groups perform required access operations in accordance with job contents.

[0024]

The composition table site 3 is set up for the video production group to share the content of the composition table with the other groups. That is, the composition table site 3 is constructed as a WWW site (web site) so that the terminal of each group can gain access to a signal database via a network.

The composition table is table data in which a variety of information is described, while items required for the production of a video program are provided. For example, the content of a video work is divided into scenes or cuts, and the scenes or the cuts are tabularized as a composition table. The composition of the scenes and the cuts (i.e., the number and sequence of the scenes and the cuts), titles, and description of the scenes and the cuts, and additional information are described in the composition table. The composition table, which is a so-called storyboard, contains most of information required for the video work. The concrete content of the composition table will be discussed later.

[0025]

The composition table site 3, as a website, includes a controller 3a managing access from the terminals (1-6), and databases 3b, 3c, and 3d storing data forming the composition table.

The meta database 3b stores item information of the composition table (frame information), text data inputted to each item, and still image data. The meta database 3b thus stores the body of the data as the composition table.

The video and music database 3d stores video data and audio data inputted into the composition table by the material gathering group and the production group. Namely, the data inputted here is a video or the like that is actually used for the video program. The video data and the audio data are stored with a predetermined item of the composition table linked therewith in the meta database 3b so that the video data and the audio data stored in the video and music database 3d are managed as the content of the composition table.

The compressed video database 3c stores a compressed version of the video data (low-resolution video data, hereinafter low-resolution video data is referred to as "low-rezo" shortly) inputted to the composition table by the material gathering group or the production group.

The low-resolution video data is made by compressing

the original video data stored in the video and music database 3d into low-quality video data having a small amount of data. For example, the low-resolution moving image is used for a pre-editing process.

The compressed data is also stored with a predetermined item of the composition table linked therewith in the meta database 3b so that the compressed data is managed as the content of the composition table.

[0026]

2. Production procedure

A production procedure of the system of Fig. 1 for producing a video program is described below with reference to Fig. 2.

When the video program is produced, the concept and plan of the video program, such as the content of the program are determined, and then the composition of the video program is determined in alignment with the concept and plan (G1).

A composition table is produced taking into consideration of the content and composition of the video program (G2).

Data of the produced composition table is uploaded from the information processing apparatus 4 of the planning and composition group to the composition table site 3. In other words, the composition table is web posted (G3).

[0027]

Each work group then gains access to the composition table site 3 from the terminal thereof for viewing, and inputs information to the composition table.

In this arrangement as shown, jobs including program production and direction (G4), procedure / negotiation /preparation (5), CG/SI production (G6), production of library video and music (G7), narration production (G8), preliminary inspection and trial video taking (G9), material gathering and video taking (G10), editing and effect addition (G11) are performed by respective groups in charge.

After being edited in the editing and effect addition job (G11) and finally checked in the program production and direction job (G4), a video program is completed and stored in a predetermined recording medium in complete packet server storage (G12).

[0028]

That is, each group performs the job instructed and requested while accessing the composition table site 3 to view the composition table. Furthermore, each group inputs instructions, messages, a progress report, job information, and produced and captured video and audio to the composition table.

Thereby, each work group recognizes the statuses of the other groups in the composition table, and can select and

execute a job to be performed by viewing the composition table.

[0029]

Hereinafter, the content of each job is described with reference to Fig. 2.

<G2: production of the composition table, and G3: web posting>

This job is performed by the planning and composition group.

The planning and composition group produces the composition table at the planning phase of the video program. The composition table is produced using the information processing apparatus 4 of Fig. 1, and stored as computer data. In this case, the composition table produces table-formatted items arranged for each scene or cut described later, as shown in Fig. 6.

When the frame of the table is constructed as the tabularized data, instructed contents are entered in items of various instructions relating to the underlying concept of the plan, the material gathering and production within prepared items.

The material gathering and the production are scheduled, and a production schedule table of Fig. 7 to be discussed later is also created.

When the composition table data, namely composition

frame data, and input data such as instructions, and production schedule table data are created, the composition table data is uploaded to the composition table site 3 separately or all at a time.

The uploaded composition table data is stored in the meta database 3b. Thereby, each group can now check the project concept and the instructions of the planning and composition group the composition table by viewing the composition table 3, while accessing the composition table site 3.

[0030]

<G5: procedure/negotiation/preparation>

This job is performed by the office work group.

The office work group accesses the composition table site 3 from a terminal, not shown in Fig. 1, to view the composition table, and checks a planned material gathering and an instruction for the planned material gathering. The office work group performs paper work for necessary contact and negotiation, material gathering permit, right of portrait, and copyright, all these required to perform the material gathering. Then, the office work group accesses the composition table site 3 subsequent to the end of or in the middle of the paper work to enter information collected from the paper work to the composition table.

[0031]

<G6: CG/SI production, G7: production of library video and music, and G8: narration production>

These jobs are performed by the production group.

The production group accesses the composition table site 3 from the terminal (the information processing apparatus 5 of Fig. 1) to view the composition table and the production schedule table to check the content of the planned material gathering and the material gathering instruction. The production group produces data for computer graphics and superimposing, selects or produces library video and music, and produces narration.

Information relating to the production of these data, and produced data are inputted to the composition table. The actual video data and the audio data are stored in the video and music database 3d with the composition table data linked therewith.

[0032]

<G9: preliminary inspection and video pre-viewing, and G10: material gathering and video taking>

These jobs are performed by the material gathering group.

The material gathering group accesses the composition table site 3 from the terminal (such as the field PC 2 or the image pickup device 1 of Fig. 1) to view the composition table to check the content of the planned material gathering

and the material gathering instruction. The material gathering group also checks the material gathering permit and information concerning equipment, input by the office work group. The material gathering group also checks the production schedule table.

In view of these data, the material gathering group performs the preliminary inspection, trial video taking, pre-viewing, and video taking for the real material gathering.

The material gathering group enters, onto the composition table, video taken during the preliminary inspection, video and audio captured during the real material gathering, and a variety of information during the video taking, such as additional information of the captured video relating to equipment, persons in charge, date and time. The video data and audio data, actually captured, are stored in the video and audio database 3d with the composition table data linked therewith.

[0033]

<G11: editing and effect addition>

This job is performed by the editing group.

The editing group accesses the composition table site 3 from the terminal (the information processing apparatus 6 of Fig. 1) to view the composition table to check the content of the planned material gathering and instructions regarding

the editing and effects addition process. The editing group also checks the video and audio, inputted by the material gathering group, and information relating to the inputted video and audio, such as information concerning equipment, and date and time of the material gathering. Furthermore, the editing group checks the video and audio, inputted by the production group, and information relating to the inputted video and audio.

The editing group performs pre-editing, and editing, adds video effects, and audio effects, and inputs the edit related information and the edited video and audio to the composition table.

The actually edited video data and audio data are stored in the video and music database 3d with the composition table data linked therewith.

[0034]

<G4: program production and direction>

This job is performed by the planning and composition group.

After web posting the composition table data, the planning and composition group accesses the composition table site 3 as necessary to view the composition table, checks the information inputted by each group, and inputs instruction information onto the composition table as necessary.

For example, the planning and composition group checks the progress of the job of each group, and the captured and produced video and audio, and inputs instruction information for job proceed instruction and content modification instruction for each group to the composition table. The planning and composition group thus generally directs the video program production process.

[0035]

As described above, for example, each group performs the instructed job while viewing the composition table posted on the composition table site 3, and inputs information onto the composition table as necessary.

[0036]

3. Structure of server

The hardware structure of the composition table site 3, serving as a server of the composition table to the terminals (1-6) of the groups, is described below with reference to Fig. 3.

Fig. 3 mainly shows a center server 150. The center server 150 can be regarded as the controller 3a of Fig. 1. Each of the databases 3b, 3c and 3d of Fig. 1 is shown as a storage device 146 of Fig. 3. A terminal 152 of Fig. 3 corresponds to the terminals (1-6) of each group.

[0037]

As shown in Fig. 3, the center server 150 includes a

public segment section 141 that responds to an access from a terminal 152 via the Internet 133 as an example of the network 7, a non-public segment section 147 that responds to an access from the terminal 152 via a dedicated line 136 as an example of the network 7, a router 151 that connects different LANs (Local Area Networks), an access right data management DB 153 that manages an access right of the valid authentic terminal 152 that accesses the center server 150, an authorization notice processor 155 that requests the designated terminal 152 to send an authentication notice, and a conversion processor 154 that converts a format of the data of video into a designated format.

[0038]

As shown in Fig. 3, the terminal 152 is connected to the center server 150 via a firewall 134 and a router 135.

[0039]

The public segment section 141 includes a firewall 140 that rejects unauthorized accesses other than an access from the terminal 152 via the Internet 133, a public access controller 142 that controls the access from the terminal 152, a notifier 145 that notifies the terminal 152 of a variety of information, a switch 143 that selectively makes connection in the same LAN, a storage device 146 having a storage area for storing data, and a public WWW (World Wide Web) apparatus 144 for providing information required by the

terminal 152.

[0040]

The public access controller 142 performs an authentication process of a user of the terminal 152 that attempts to access the public segment section 141. If the user is successfully authenticated, the public access controller 142 permits the terminal 152 to access the public segment section 141.

Subsequent to the authentication process, in cooperation with the public WWW apparatus 144, the public access controller 142 controls the accessing of the terminal 152 to public storage areas in the access right data management DB 152 and the storage device 146.

[0041]

The notifier 145 and the storage device 146 are used for the terminal 152 that attempts to access the non-public segment section 147. The storage device 146 is a storage device that can store file data, etc.

[0042]

In cooperation with the public access controller 142, the public WWW apparatus 144 controls the access process of the terminal 152 to the storage device 146 via the Internet 133 and the dedicated line 136, and causes a display of the terminal 152 to present a required information screen.

[0043]

The non-public segment section 147 includes a firewall 139 that rejects unauthorized accesses performed by any terminal other than the terminal 152 via the dedicated line 136, a non-public access controller 148 that controls the access from the terminal 152, a switch 149 that selectively makes connection within the same LAN, and a non-public WWW apparatus 156 that provides information required by the terminal 152.

[0044]

The non-public access controller 148 performs an authentication process of a user of the terminal 152 that accesses the non-public segment section 147. If the user is successfully authenticated, the non-public access controller 148 permits the terminal 152 to access the non-public segment section 147.

[0045]

In cooperation with the non-public WWW apparatus 156, subsequent to the authentication process, the non-public access controller 148 controls the accessing of the terminal 152 to non-public storage areas in the access right data management DB 152 and the storage device 146.

[0046]

In cooperation with the non-public access controller 148, the non-public WWW apparatus 156 performs a process relating to the accessing of the terminal 152 to the storage

device 146 via the dedicated line 136, and causes a display of the terminal 152 to display a required information screen.

[0047]

The access right data management DB 152 is a management device, and manages access rights of the terminal 152 and a group holding the terminal 152 to directories, file data, and comment data.

In response to an authentication request from one of the public access controller 141 and the non-public access controller, the access right data management DB 152 authenticates the terminal 152 as to eligibility for storage service, based on personal identification information (ID) and a password (PW) of a user (person in charge) belonging to the managed terminal 152.

[0048]

A determination of whether to permit accessing to the directory, the file data and the comment data is performed based on access right information set in access right data.

The access right data contains information relating to attributes of the directory and subdirectories, information relating to attributes of the file data, and information relating to the comment data.

[0049]

In response to a request from the terminal 152, the authorization notice processor 155 circulates an

authorization notice such as moving image data on the basis of a circulation route to at least one of predetermined terminals 152 belonging to the group. The authorization notice contains a reference-only notice that involves no authorization.

The accessing for setting up a notice route, such as modifying the order of notice authorization, is performed only by the management terminal 152. This management function is the one of the terminal 152 belonging to the group.

[0050]

In response to the accessing from the terminal 152, the conversion processor 154 converts the format of the data, such as the video, stored in the designated storage device 146 into a designated format.

[0051]

4. Structure of terminal

Fig. 4 illustrates the structure of the terminal. The structure of the terminal is that of each of the information processing apparatuses 4, 5, 6, and the field PC 2 of Fig. 1.

For example, the terminal is realized by installing and initiating a program on a personal computer. The program allows the computer to view the composition table site and to input data to the composition table. Alternatively, a dedicated apparatus can be used instead of using a personal

computer.

[0052]

A CPU 41 of Fig. 4 performs control and arithmetic operations of elements under the control of the initiated program. For example, the CPU 41 performs an input and output operation of an operator, memory control, HDD (hard disk drive) control, a communication operation via a network, external interface control, recording and replay control of disks 90 and 91, and data arithmetic operations.

The CPU 41 exchanges control signals and data with circuit blocks via a bus 42.

[0053]

A memory 43 collectively represents a RAM, a ROM, and a flash memory, used by the CPU 41.

The ROM of the memory 43 stores an operation program of the CPU 41, a program loader, etc. The flash memory of the memory 43 stores a variety of arithmetic coefficients, and parameters for use in the program. A data area and task area are temporarily reserved in the RAM of the memory 43 to execute the program.

[0054]

An input unit 45 is an input device including a keyboard, a mouse, a touch panel, a remote commander, a scanner, etc. The operator performs various operational inputs and data inputs using the input unit 45. An input

processor 44 performs a predetermined process on input information, and transfers the processed input information to the CPU 41 as the operational input and data. In response, the CPU 41 performs required arithmetic operations and control on the input information.

[0055]

A display 47 is, for example, a display device, such as a CRT or a liquid-crystal panel, and displays a variety of information screens to the operator.

When the CPU 41 supplies display information to the display processor 46 in accordance with a variety of operational statuses and input statuses, the display processor 46 causes the display 47 to execute a display operation based on the supplied display data.

[0056]

An HDD 48 stores a variety of programs, various data, and serves as a data storage area for storing composition table data and a production schedule table or the like.

[0057]

Under the control of the CPU 41, a communication processor 49 performs an encode process on transmission data and a decode process on received data.

A network interface 50 transmits the transmission data encoded by a communication processor 49 to a predetermined device via the network 7. The network interface 50

transfers a signal transmitted from an external device via the network 7 to the communication processor 49.

The communication processor 49 transfers received information to the CPU 41.

[0058]

The disk drive 51 records data onto and replays data from a disk 90. The disk 90 is used as a recording and replay medium in the image pickup device 1, for example.

Under the control of the CPU 41, the disk drive 51 records, onto the loaded disk 90, the composition table data from the composition table site 3, for example. The disk drive 51 also plays a video, captured by the image pickup device 1 and recorded on the disk 90.

[0059]

A disk drive 55 records data onto or replays data from a disk 91. The disk 91 can be a CD type disk such as a CD-DA, a CD-ROM, or a CD-R, or a DVD type disk such as a DVD-ROM, a DVD-RAM, a DVD-R or the like.

When a program for accessing the composition table site 3, or an application program for use in the job of each group, or data is supplied in a CD-ROM or a DVD-ROM, the disk 91 is loaded into the disk drive 55 to install the programs and data.

[0060]

An external interface 54 is connected to, for example,

an IEEE 1394, USB, or SCSI type peripheral device to perform data communication.

Devices corresponding to the disk drives 51 and 55 can be connected as the peripheral devices. An external HDD can be connected to store the programs, required databases, or the like thereon. Furthermore, a printer and a scanner can be connected as the peripheral devices. Together with another information processing apparatus, a LAN can be formed.

[0061]

The audio processor 53 processes audio data, outputted to the operator, and supplies the processed audio data to an audio output unit 52, such as a loudspeaker or a headphone terminal as an audio output.

When the disk drives 51 and 55 read the audio data from the disks 90 and 91 respectively, the audio data can be outputted as an audio output depending on the type of the audio processor 53 and audio output unit 52. An audio file, etc., stored in the HDD 48 or another element can be output for playing.

[0062]

To use the information processing apparatuses including a personal computer, etc., as the terminal of the present invention, the program for causing the information processing apparatus of Fig. 4 to perform the following

processes is installed onto the computer.

A process of accessing the composition table site 3 to acquire the composition table data.

A process of causing the display 47 or the like to display the acquired composition table data.

A process of generating input information for a predetermined item in the composition table data from operation information and input data from the input unit 45 or the like, or data input via the external interface 54.

A process of transmitting (uploading) the generated input information to the composition table site 3 via the network interface 50.

[0063]

When the composition table is viewed, it is not necessarily required that the terminal of each group views all content of the composition table data. Accordingly, a program executing a process for acquiring information of only a part of the items of the composition table data is also prepared in order to acquire the composition table data from the composition table site 3.

[0064]

A program for generating the composition table data composed of items required for the production of the video program and transmitting (uploading) the composition table data to the composition table site 3 via the network

interface 50 performs the function of the information processing apparatus 4 of the planning and composition group.

Further, a program required to generate the input information to an item relating to one of the material gathering and production instruction in the composition table data is arranged in a process of generating the input information.

[0065]

A program executing a process of generating the input information to an item relating to one of the material gathering and production as the aforementioned input information in the composition table data is arranged in the terminal of the material gathering group, such as the field PC 2, or the information processing apparatus 5 of the production group.

A program executing a process of generating the input information to an item relating to one of a content of a video gathered or produced, and a content of an audio gathered or produced as the aforementioned input information in the composition table data is arranged.

[0066]

A program executing a process of generating the input information to an item relating to editing of the composition table data as the aforementioned input information is arranged in the information processing

apparatus 6 of the editing group.

[0067]

These programs are supplied in the disk 91 or 90, and then installed onto, for example, the HDD 48. Alternatively, these programs can be downloaded from an external server via the network interface 50.

Of course, the programs can be stored in the HDD 48 or the memory 43 beforehand.

Alternatively, programs can be stored in a peripheral device connected to the external interface 54.

[0068]

5. Structure of image pickup device

Fig. 5 illustrates example structure of the image pickup device 1 that executes image pickup in the material gathering group and serves as a terminal of the system of Fig. 1 together with the field PC 2.

A system controller 11 includes a microcomputer, and controls entire image pickup device 1. That is, the system controller 11 controls operation of each element described below.

[0069]

A camera section 12 is an assembly for video taking, and includes an image pickup unit 13, a video signal

processor 14, and a camera controller 15.

The image pickup unit 13 includes a lens system composed of an imaging lens, a diaphragm, etc., a drive system for causing the lens system to perform a focus operation and a zoom operation, and a CCD (Charge Coupled Device) that detects imaging light obtained by the lens system, and generates an image signal by means of performing photoelectric conversion.

[0070]

The video signal processor 14 includes a sample-hold/AGC (Automatic Gain Control) circuit that performs gain adjust and wavelength shaping for a signal obtained by the CCD of the camera section 13, and a video A/D converter, and generates digital video data of a captured image.

[0071]

The camera controller 15 controls the operation of the image pickup unit 13 and the video signal processor 14 in response to an instruction from the system controller 11. For example, the camera controller 15 performs a (motor) control process to cause the image pickup unit 13 to perform an auto-focus operation, an auto-exposure adjustment, a diaphragm adjustment, and a zoom adjustment.

The camera controller 15, including a timing generator, controls a signal processing operation for the CCD, and the sample-hold/AGC circuit and the video A/D converter in the

video signal processor 14 in accordance with a timing signal generated by the timing generator thereof.

[0072]

The camera section 12 thus constructed generates the captured video data.

An audio signal processor 34 A/D-converts an audio signal picked up by a microphone 33 into audio data that is synchronized with the captured video data.

[0073]

A record and play section 16 records the video data (and the audio data picked up by the microphone 33), captured by the camera section 12, onto a recording medium (the disk 90) and plays the recorded video data.

The record and play section 16 includes an encoding and decoding unit 17, a disk drive 18, and a recording and playing controller 19.

[0074]

The encoding and decoding unit 17 converts the video data, captured by the camera section 12, into a record format of the disk 90. The audio data is also converted in format. The video and audio data can be recorded onto the disk 90 after being compressed in a predetermined method as an MPEG (Moving Picture Experts Group) method or another compression method.

The captured video data (and the audio data) processed

by the encoding and decoding unit 17 is supplied to the disk drive 18 and then recorded onto the loaded disk 90.

During playing of the data on the disk 90, the video data (and the audio data) replayed by the disk drive 18 is decoded by the encoding and decoding unit 17.

[0075]

In response to an instruction from the system controller 11, the recording and playing controller 19 controls the process of the encoding and decoding unit 17, the record and playing operation and data input and output operation of the disk drive 18.

The recording and playing controller 19 controls the disk drive 18, thereby reading and writing the management information, such as FAT data, and editing the data recorded on the disk 90 to update the FAT.

[0076]

The video data, captured by the camera section 17 during video taking, and the video data replayed from the disk 90 are allowed to be displayed on a viewfinder 31.

When the camera section 12 outputs the captured video data during video taking or on standby for video taking, the captured video data is supplied to the viewfinder driver 30.

In response to an instruction from the system controller 11, the viewfinder driver 30 causes the viewfinder 31 to display a video of the captured video data.

In response to an instruction from the system controller 11, the viewfinder driver 30 causes the viewfinder 31 to superimpose a predetermined character image on the video.

During replaying of the captured video data from the disk 90, the video data, played from the disk drive 18, and decoded by the encoding and decoding unit 17, is supplied to the viewfinder driver 30. In response to an instruction from the system controller 11, the viewfinder driver 30 causes the viewfinder 31 to display the supplied video data and a video of the character image to be superimposed.

[0077]

Accordingly, a photographer (cameraman) waits on standby for video taking (to check an object to be photographed), monitors video when taking the video, checks the content of a video recorded on the disk 90, and performs a brief editing operation while viewing the viewfinder 31.

[0078]

The audio data replayed from the disk 90 is D/A converted by an audio driver 35, and subjected to signal processing including a filtering operation and amplification, and is outputted from a loudspeaker 36.

[0079]

An external interface 20 is a section where the video data or the like is inputted and outputted among an audio-visual device, an information device, a storage device, or

the like as external devices.

A communication unit 21 performs, for example, wired and wireless network communications. For example, the communication unit 21 includes a modem, an Ethernet interface, or a mobile telephone interface. That is, with the communication unit 21, the image pickup device 1 can access the composition table site 3 via the network 7 as shown in Fig. 1.

The communication unit 21 may be internal to the image pickup device 1, or may be connected to the image pickup device 1 as a separate device. With the communication unit 21, the image pickup device 1 can perform network communications.

Within the material gathering group, the image pickup device 1 can perform a variety of data communications with the field PC 2 via the communication unit 21 or the external interface 20 in a wired or wireless fashion.

The captured video and audio data can be transmitted via the communication unit 21 or the external interface 20 while being replayed by the record and play section 16, or during video taking (video recording).

Incidentally, not only the original moving image but also low-resolution moving image compressed by the encoding and decoding unit can be transmitted as the video data.

[0080]

A ROM 22, a RAM 23, and a flash memory 24 store data and programs required by the system controller 11, respectively, and serve an arithmetic operation area.

For example, the ROM 23 stores a processing program of the system controller 11, fixed data or the like. The RAM 23 temporarily stores information and serves a work area. The flash memory 24 stores a variety of control coefficients or the like.

To allow the image pickup device 1 to access the composition table site 3, the required program discussed with reference to the terminal of Fig. 4 is stored in, for example, the ROM 22 and the system controller 11 performs a process of the composition table in accordance with the program.

[0081]

An operation unit 27 is provided with a variety of controls to operate the image pickup device 1. That is, the controls are used to perform power operations, image pickup operations, replay operations, zoom operations, a variety of mode operations, and editing operations.

Upon detecting the operation of each control by a user, the system controller 11 controls elements to perform required functions.

[0082]

A power supply 32 with a DC/DC converter thereof

generates supply voltages at required levels for circuits in response to a direct current power from an internal battery or a direct current power obtained from a commercial alternating current power through a power supply adaptor. The system controller 11 controls the power supply 32 for power on/off in response to the power operation of the above-described operation unit 27.

[0083]

Incidentally, a body of the image pickup device 1 can have a display such as a liquid-crystal display to display the composition table obtained from, for example, the composition table site 3.

Like the viewfinder 31, such a display can display a captured video and a replayed video, or the like.

[0084]

6. Composition table

Fig. 6 illustrates an example of the items prepared in the composition table.

As described above, the composition table, including a scene number and a cut number, is data in a table format into which information required for each of the jobs including material gathering, production, and editing, and information obtained as a result of the jobs are input.

[0085]

As shown, scene information K1 contains columns for a scene number and a scene title. The scene information K1 means a scene structure of a video program determined in the planning and composition.

Cut information K2 contains columns for a cut number and a cut title. The cut is a unit of video forming one scene, and forms a continuous portion of video. A plurality of cuts typically forms one scene.

[0086]

Underlying planning intention K3 and video K4 contain a scenario and a description, and a still image, respectively.

Written in these items are the scenario of the scene and the cut, and the description of the intended content. Still image data is also inputted to convey a cut image of a video image.

[0087]

Information of material gathering and production instruction K5 contains columns for a material gathering and production number, a location, a date and time of start, a date and time of end, a person in charge, equipment, an instruction mail transmission, and a progress status.

The "material gathering and production number" column is assigned to each cut.

The designation of a location where the material

gathering and production are performed is written in the "location" column.

The designation of the date and time for the material gathering and production is written in the "date and time of start" column.

The designation of the date and time for completing the material gathering and destination is written in the "date and time of end" column.

The designation of a person in charge performing the material gathering and production is written in the "person in charge" column using an ID assigned to the person or staff in charge.

The designation of equipment for use in the material gathering and production is written in the "equipment" column.

An instruction mail issued from the planning and composition group to a particular group in charge or a particular person in charge can be written in the "instruction mail transmission" column, and an instruction mail can be transmitted by clicking a transmission button attached to the "instruction mail transmission" column.

An instruction acknowledgement notification responsive to the instruction mail or progress information from each group is inputted in the "progress status" column.

[0088]

Material gathering and production information K6 in the composition table contains columns of a media ID, a recording session, a location, a date and time of start, a date and time of end, a person in charge, equipment, a note for material gathering and production, and a copyright.

Identification information of a medium (disk 90) on which the video data, captured by the image pickup device 1 as an instructed cut, is recorded is written in the "media ID" column.

A recording session of the video of the instructed cut is written in a frame ID of the video data or a time code in the "recording session" column.

A location where the material gathering and production have been performed is written in the "location" column.

A date and time when the material gathering and production started are written in the "date and time of start" column.

A date and time when the material gathering and production completed are written in the "date and time of end" column.

A person in charge who made the material gathering and production is written in the "person in charge" column using an ID attached to the person or staff in charge.

Equipment used in the material gathering and production is written in the "equipment" column.

A note of which a group in charge and the other groups need to be aware is written in the "note for material gathering and production" column. The note includes a massage and dos and don'ts about the captured or produced video or the captured or produced audio, and information about an event that occurred in the material gathering and production job.

Information, relating to a copyright created in the material gathering and production or a copyright of an object on which the material gathering and production operation has been performed, or the like is written in the "copyright" column.

[0089]

The composition table contains items of information relating to the video K7, the audio K8, and the gathered data K9, captured or produced in the material gathering and production process.

The video K7 includes columns for a still image, a low-resolution moving image, an original moving image, and a UMID (Unique Material ID), and time.

A still image as a representative image of the captured cut is inputted to the "still image" column.

Low-resolution video data as captured cut video data is inputted to the "low-resolution moving image" column.

The captured cut video data is inputted to the

"original moving image" column.

The UMID, namely, identification information attached to each video material (cut video) is written in the "UMID" column.

A time length of the video data is written in the "time" column.

[0090]

The audio K8 contains a column of each channel. Namely, each of the audio data of four channels is inputted to the "CH1" through "CH4" columns.

[0091]

The material gathering data K9 contains columns for a camera posture, camera parameters, and an environment.

A posture, a position, and a photographing direction of a camera during video taking are written in the "camera posture" column.

Numerical information of the image pickup device 1, such as a diaphragm, white balance, gain, etc., during the video taking is written in the "camera parameters" column.

Information relating to the video taking environment is written in the "environment" column.

[0092]

The composition table further contains items for an edited video K10, an edited audio K11, and edit data K12 in the editing job.

The edited video K10 contains columns for a still image, a low-resolution moving image, a high-resolution moving image, a UMID, and time.

An edited still image as a representative cut image is inputted to the "still image" column.

Low-quality video data as edited cut video data is inputted to the "low-resolution moving image" column.

Captured cut video data is inputted to the "high-resolution moving image" column.

The UMID, namely, identification information attached to an image material (cut video) is written in the "UMID" column.

A time length of edited video data is written in the "time" column.

[0093]

The edited audio K11 contains a column of each channel. That is, the edited audio data of, for example, four channels are inputted to the "CH1" through "CH4" columns, respectively.

[0094]

The edit data K12 contains columns for edit effects, a superimpose, and a note.

Data such as a video effect added in an editing process is inputted to the "edit effect" column.

Superimpose information added in the editing process is

inputted to the "superimpose" column.

A note of which a group in charge and the other groups need to be aware is written in the "note" column. The note includes a massage and a notice about the edited video or the edited audio, and information about an event that occurred in the editing job.

[0095]

Incidentally, actual video data or audio data is not inputted to the composition table data in the "low-resolution moving image", the "original moving image", and "CH1" through "CH4" in columns (K7, K8, K10, and K11) relating to the material gathering and production process or the editing process. These video data and the audio data are stored in the video and music database 3d and the compressed video database 3c as described with reference to Fig. 1, and on the column of composition table data, link information therefore is written.

Furthermore, a replay button is formed for each item. In each terminal, the linked video data and audio data can be replayed by clicking the replay button.

[0096]

The composition table includes the above-referenced items. That is, the planning and composition group produces the composition table data containing the above-referenced items for web posting (G3) of Fig. 2, and uploads the

composition table data to the composition table site 3.

As previously discussed, the planning and composition group produces the production schedule table together with the above-referenced composition table data, and transmits the production schedule table and the composition table together to the composition table site 3 for viewing.

[0097]

The production schedule table is data arranged in a table format shown in Fig. 7.

That is, before the production of the composition table, the production schedule table lists a writing schedule of a concept sheet, a concept sheet draft, posting schedule of posting the composition table data to the composition table site 3, and a material gathering and production schedule of cuts with the cut numbers thereof listed in the composition table.

The production schedule table is posted on the composition table site 3. Each group carries out the job thereof in accordance with the production schedule table. When a group in charge completes the job thereof listed in the production schedule table, the group enters information, such as the word "completed" in the production schedule table.

Alternatively, the production schedule table may be linked to the composition table data so that information

about the completion of each job is automatically inputted in response to the inputting of predetermined data into the composition table. For example, if a captured video having a cut #001 is inputted to the composition table, information of the cut #001 in the production schedule table is changed to "completed".

[0098]

The composition table and the production schedule table contain the above-described information. Each group views the content of a predetermined item in accordance with the job in the group's charge, and inputs information to the tables.

Fig. 8 illustrates which group views and inputs information to which item in the composition table. Fig. 8 lists a viewing (O) operation and an inputting (●) operation to each item performed by the planning and composition group (information processing apparatus 4), the field PC 2 of the material gathering group, the image pickup device 1 of the material gathering group, the production group (information processing apparatus 5), and the editing group (information processing apparatus 6).

[0099]

As shown in the top portion of the table in Fig. 8, the items (scene number through equipment) of the scene K1, the cut K2, the planning intention K3, the video K4, and the

material gathering and production intention K5 are instructions issued from the planning and composition group to each group.

Accordingly, the information processing apparatus 4 of the planning and composition group inputs the content of each of these items. Further, the terminals (1, 2, 5, and 6) of the other group view the contents of these items to check the content of job instructions.

The image pickup device 1 does not view the columns of the "scenario", the "description", and the "still image" here. However, it is sufficient if theses columns are viewed by the field PC 2 in a material gathering field, because, occasionally, it is not appropriate to download a relatively large amount of information to the image pickup device 1. Of course, the image pickup device 1 can view these columns.

[0100]

The "instruction mail transmission" information in the material gathering and production instruction K5 is issued from the planning and composition group to each group as discussed previously. The "instruction mail transmission" information is thus inputted by the information processing apparatus 4 of the planning and composition group. The terminal of each destination group displays the content as a received mail. The "progress status" is for a mail

reception acknowledgement notification and a status notification, and the terminal of each group automatically or manually inputs data to the "progress status" column. The planning and composition group views the "progress status", and checks mailed instruction notifications and the job progress status of each group.

[0101]

The items (media ID - environment) in the material gathering and production information K6, the video K7, the audio K8, and the material gathering data K9 shown in the middle portion of the table of Fig. 8 are inputted by the material gathering group and the production group.

The image pickup device 1 inputs information responsive to video taking to the "media ID", the "recording session", the "location", the "date and time of start", the "date and time of end", the "person in charge", and the "equipment". The "note for the material gathering and production" and the "copyright" are inputted not by the image pickup device 1 but by the field PC 2.

The video and audio data obtained in the real video taking (the "low-resolution moving image", the "original moving image", the "UMID", the "time", the "CH1"-"CH4") and the posture of the image pickup device, the parameters, and the video taking environment as the "camera posture", the "camera parameters", and the "environment" are inputted to

the items in the video K7, the audio K8, and the data K9.

The "still image" is selected and inputted by the field PC 2 based on, for example, the "low-resolution moving image" rather than by the image pickup device 1.

[0102]

The field PC 2 inputs the "location", the "date and time of start", the "date and time of end", the "person in charge", the "equipment", the "note for the material gathering and production", and the "copyright" as the information responsive to the actual video taking.

The "still image" is inputted to the video K7.

The image pickup device 1 inputs the "media ID", and the "recording session" and therefore, the field PC 2 views these pieces of information. Although the image pickup device 1 also inputs the "environment", the field PC 2 also can input the "environment".

The field PC 2 views the video and audio data (the "low-resolution moving image", the "UMID", the "time", the "CH1"-"CH4") captured by the image pickup device 1, and the "camera posture", and the "camera parameters". The field PC 2 generates the "still image" based on the "low-resolution moving image" and inputs the resultant "still image".

[0103]

Information, inputted by the image pickup device 1 and viewed on the field PC 2, is directly transferred from the

image pickup device 1 to the field PC 2 rather than via the composition table site 3. For this reason, the original moving image cannot be viewed on the field PC 2. This is because communication of moving image data in a large amount between the image pickup device 1 and the field PC 2 in the same material gathering field is not appropriate.

The image pickup device 1 and the field PC 2 can mutually view each other's input information via the composition table site 3. The field PC 2 can obviously view the "original moving image" transmitted to the composition table site 3 from the image pickup device 1.

[0104]

The production group inputs all items in the middle portion of the table of Fig. 8, except the "camera posture", the "camera parameters", and the "environment" relating to the image pickup device 1.

[0105]

The items (still image - note) of the edited video K10, the edited audio K11, and the edit data K12 shown in the middle portion of the table of Fig. 8 are inputted by the editing group.

The planning and composition group and the production group view and check the items inputted by the editing group, and perform required jobs.

[0106]

The items in the composition table and the input and view items of each group have been described for exemplary purposes only.

[0107]

7. Function of each element

The functions of elements that produce the video program using the composition table are discussed below.

[0108]

<Function of the composition table site 3>

• The composition table site 3 can retrieve all information inputted to the composition table and the production schedule table from the databases. That is, the above-referenced instruction information, the video, the audio, the material gathering information, the material gathering intention, the scenario, the schedule and other instruction information are retrieved.

• The composition table site 3 can display major items as the composition table.

• The composition table site 3 can display only required contents. For example, the composition table site 3 can display only items required or items allowed to be viewed, corresponding to the type of a terminal attempting to access, the type of a group, or the authority of a person in charge.

• The composition table site 3 can insert or delete a scene or a cut. In response to an instruction from the planning and composition group, the frame of the composition table can be modified.

• The composition table site 3 links the production schedule table to the composition table. For example, an automatic inputting process is performed to the production schedule table in response to the inputting of a predetermined item to the composition table.

• The composition table site 3 stores a modification history. For example, if a scene is inserted, information about the content of a modification, the date and time of the modification, and a person who modified, such as "scene insertion (2002/1/5 10:35 by Ichiro SUZUKI)", is stored.

[0109]

• The composition table site 3 stores the moving image in the video and music database 3d as a dedicated server, and manages the moving image in the composition table by means of linking function. The composition table site 3 stores the low-resolution moving image in the dedicated compressed video database 3c while also establishing a link with the composition table.

• The composition table site 3 selects a cell in the composition table for the moving image data and the audio data, and a replay button attached to the table is clicked

for replaying. That is, the replaying status of the actual video/audio captured or edited is led from the composition table.

[0110]

• The composition table site 3 transmits an instruction mail to each group based on the utilization of item in the "instruction mail transmission" of the planning and composition group, and stores the history of the mail transmission. The instruction mail is made possible to transmit to a personal computer and a mobile telephone. Communication results are reflected in the "progress" in the composition table. For example, when a receiver sends a reply for acknowledgement in a mail acknowledgement function, a message meaning an instruction has been accepted is displayed in the "progress" column.

In response to the inputting to the composition table, the message that the instruction has been accepted is displayed in the "progress" column.

[0111]

• The composition table site 3 manages paper work required for the material gathering, such as a necessity of an application, application destination information, a progress of the application, permit cards viewing or the like as a material gathering permission management function. For example, these items can be posted as the composition

table items, although not mentioned in the above discussion.

• The composition table site 3 manages a necessity of a copyright permission request, copyright holder information, a progress of a copyright permission, document viewing, rebroadcast information, etc, as a copyright management function. These items can also be posted in the composition table.

[0112]

• As a viewer access management for individual site viewers, the composition table site 3 manages an item range within which each group or each person in charge is permitted to access the composition table. Alternatively, the composition table site 3 manages the composition table to prevent any group or any person other than a predetermined group or a predetermined person in charge from accessing the composition table.

[0113]

• The composition table site 3 has a multi-layer structure with a layer for production and direction purposes, a layer for material gathering, etc. When these layers are all overlapped, the entirety of the composition table is completed. For example, although the view items and the input items are limited to each group as described above, only the item in which each group can view or input is presented to each group.

• When the composition table site 3 is multi-layer structured, update (information input) authority is set from layer to layer.

• Instructions relating to the editing, such as superimposing and effects instructions can be issued.

• The composition table site 3 is linked to a complete packet. Data edited and uploaded to the composition table is linked as complete packet storage data.

[0114]

<Function of the image pickup device 1>

• With a communication function, the image pickup device 1 accesses the composition table site 3, and enables data communication with the field PC 2.

• With the communication function, the image pickup device 1 can receive data from the composition table site 3. The image pickup device 1 has a high degree of freedom in setting the view items in the composition table.

• With the communication function, the image pickup device 1 can receive data from the field PC 2. The image pickup device 1 has a high degree of freedom in setting data items to be received.

• With the communication function, the image pickup device 1 can transmit data to the composition table site 3. The image pickup device 1 has a high degree of freedom in setting the input items in the composition table.

• With the communication function, the image pickup device 1 can transmit data to the field PC 2. The image pickup device 1 has a high degree of freedom in setting data items to be transmitted to the field PC 2.

• A low-resolution moving image, a time code, and a UMID for the hard news or the like can be transmitted to the composition table site 3 and the field PC 2 when taking images.

[0115]

• As for recording of captured image data, a UMID, a shot mark, and shot data can be recorded. The shot marks include record start point, a record end point, OK·NG information, etc. The shot data includes date, time, and apparatus ID.

• A camera status (camera position data), camera parameters (diaphragm, white balance, gain, etc.) can be recorded.

• All frames of the video data are tagged with an individual marker (frame ID). The frame ID is attached to facilitate searching, and is different from the UMID.

• The image pickup device 1 records and manages a correspondence between a UMID and a frame ID on an FAT area of the disk 90 every shot or, in addition, every predetermined interval time.

• The composition table in whole or in part can be

recorded.

[0116]

• The image pickup device 1 provides multi-language capability.

• The disk 90 in use has a pre-recorded media ID.

• The composition table recorded on a medium (disk 90) can display on the viewfinder 31 or the like, and the content of the record is accessible.

• The composition table recorded on the medium (disk 90) has partially the same format as the composition table of the composition table site 3.

• The composition table data recorded on the medium (disk 90) can be added to, and used to modify (overwrite) the composition table in the composition table site 3.

• The data overwriting the composition table includes an original image, a low-resolution image, audio, and meta data.

• The display of the composition table can be rearranged in order, and it is not necessary to take video in the instructed order of scenes or cuts.

[0117]

<Functions of the field PC 2, and the information processing apparatuses 4, 5, and 6>

• A web browser enables a basic operation on the composition table.

• Each of the field PC 2, and the information processing apparatuses 4, 5, and 6 can input data to and manipulate the composition table in a log-on state to the composition table site 3. To quickly perform a detailed operation, the composition table data can be downloaded for manipulation using applications.

• Data relating to an item of an instruction content in the composition table can be inputted (by the information processing apparatus 4).

• The inputting of material gathering information, production information, and edit information to the composition table (the field PC 2, and the information processing apparatuses 5 and 6) is possible.

[0118]

8. Example of access to the composition table

The operation of the image pickup device 1 and the field PC 2 of the material gathering group in the use of the composition table is described below as an example.

Fig. 9 illustrates the communication operation among the composition table site 3, the image pickup device 1, and the field PC 2.

[0119]

<The field PC 2 and the composition table site 3>

By accessing the composition table site 3, the field PC 2 acquires the composition table. By viewing the item of the material gathering instruction in the composition table, the field PC 2 can input a variety of information in accordance with material gathering activities. In this case, although the information may be inputted to the composition table in a log-on state on the composition table site 3, the field PC 2 may download the composition table for manipulation, and then it may upload the composition table to the composition table site 3. An operator can select which way to use to input the information to the composition table.

[0120]

<The image pickup device 1 and the composition table site 3>

The image pickup device 1 can acquire the composition table by accessing the composition table site 3. At this moment, it may suffice for the image pickup device 1 to acquire only a part of the composition table items accessible to the material gathering group. This is because the field PC 2 can access all composition table items accessible to the material gathering group.

The composition table data is captured into the image pickup device 1 via the communication unit 21. The composition table data is then recorded on the disk 90, and can be optionally inputted and displayed on the image pickup

device 1.

A video taking cameraman using the image pickup device 1 checks the material gathering instruction on one of the image pickup device 1 and the field PC 2, and performs a required video taking operation.

[0121]

The video taking operation is performed with a cut posted on the composition table selected.

With the image pickup device 1 capturing video, the video data and the audio data are recorded on the disk 90 loaded in the image pickup device 1. Compressed video data is also recorded on the disk 90. These pieces of data are linked to the columns of the composition table corresponding to the cut selected during the video taking operation (the "original moving image", the "low-resolution moving image", the "CH1" through the "CH4").

The UMID, the time code, the frame ID, and other meta data are also recorded on the disk 90, and are reflected in the composition table data, respectively. For example, these pieces of data are inputted to the respective items of the "UMID", the "recording session", the "time", and the "camera parameters", for example.

The information of the media ID, the location, the date and time, the person in charge, the equipment, etc. written on the disk 90 as the material gathering and production

information K6 are inputted to the composition table data.

[0122]

The video and audio data obtained in the video taking and the data inputted to the composition table on the disk 90 are transmitted to the composition table site 3 via the communication unit 21. The video and audio data are thus inputted to the items of the material gathering information and the material gathering content of the composition table site 3. For example, the material gathering content items include the "media ID" and other material gathering information, the "original moving image", the "low-resolution moving image", the "UMID", the "CH1" through the "CH4".

Depending on the communication performance and the communication environment of the image pickup device 1 and a line in use, the transmission of the video data, such as the "original moving image" and the "low-resolution moving image" and the music data is sometimes not appropriate. In such a case, at least transmission of the UMID suffices.

If the UMID is inputted to a certain cut in the composition table of the composition table site 3, linking is established when the actual video data is uploaded.

[0123]

<The image pickup device 1 and the field PC 2>

The image pickup device 1 transmits the low-resolution

moving image, the UMID, the image pickup information of the captured image to the field PC 2.

The field PC 2 transmits a part of the composition table (the material gathering instruction manipulated in the field) to the image pickup device 1 as necessary.

[0124]

9. Production job using the composition table

An example of the video program production job performed based on the above-described structure and the functions of each device and the content of the composition table is described below.

[0125]

<Conception phase (the planning and composition group: the information processing apparatus 4)>

After producing the composition table containing required items, a scene number, a scene title, a cut number, a cut title, a scenario, and a description are inputted to items of the scene K1, the cut K2, the planning intention K3, and the video K4 of the composition table shown in Fig. 10.

A hand-written sketch (so-called storyboard) or a still image captured by a digital camera or the like is inputted to the item of the still image.

The inputting of these data is performed on a per scene number basis. For example, even if data is inputted to each

item for scene 1 only with scene 2 and subsequent scenes left unfilled, the scene 1 can proceed to the planning phase of the next material gathering and production.

[0126]

<The planning phase of the material gathering and production (The planning and composition group: the information processing apparatus 4)>

A material gathering and production number, a location, a date and time of start, a date and time of end, a person in charge (a name of the person in charge and an ID of the person in charge), and equipment are inputted to the respective items of the material gathering and production instruction K5 of the composition table of Fig. 10.

The writing of these data can be performed on a per scene number basis. For example, even if data is inputted to each item for scene 1 only with scene 2 and subsequent scenes left unfilled, for the scene 1, the process can proceed to the next material gathering and production activity.

An instruction mail is transmitted as necessary. To transmit the instruction mail, a transmission button arranged in an instruction mail transmission column is pressed.

A production schedule table is produced while the composition table is created and the data is inputted to the

items of the composition table.

The progress column shows information from each group relating to the material gathering and production to be discussed below.

[0127]

<The material gathering activity (the material gathering group: the image pickup device 1 and the field PC 2)>

The image pickup device 1 and the field PC 2 acquire the composition table data having the items of Figs. 11 and 12. The material gathering activity is performed referring to the already posted information of each item of the scene K1, the cut K2, the planning intention K3, the video K4, and the material gathering and production instruction K5.

A media ID, a recording session, a location, a date and time of start, a date and time of end, a person in charge (+ID), equipment, and a material gathering note are written on the items of the material gathering and production information K6 of Fig. 11 corresponding to the material gathering and image taking.

If an object is copyrighted, a notice is written on the copyright column.

The progress status of the material gathering activity is written on the progress column. The wording written on the progress status column includes the instruction accepted, the material gathering process in progress, the material

gathering process completed, etc.

As the results of the material gathering activity, the contents of respective items about the video K7, the audio K8, and the material gathering data K9 as shown in Fig. 12 are inputted.

The writing to the items of Figs. 11 and 12 are performed on a per scene number basis. For example, if the material gathering activity is performed for scene 1 only, and information is written in each item, the next editing process is performed for the scene 1 even if scene 2 and subsequent scenes are left unfilled.

[0128]

<The production activity (the production group: the information processing apparatus 5)>

The information processing apparatus 5 acquires the composition table data having the items of Figs. 11 and 12. The information processing apparatus 5 checks the information of the already posted items in the scene K1, the cut K2, the planning intention K3, the video K4, and the material gathering and production instruction K5, and the production group performs the production activity.

A media ID, a recording session, a location, a date and time of start, a date and time of end, a person in charge (+ID), equipment, and a production note are written in the items of the material gathering and production information

K6 of Fig. 11 corresponding to the material gathering and image taking.

If the video and audio data produced and selected is copyrighted, a notice is written in the copyright column.

The progress status of the production activity is written in the progress column. The wording written in the progress column includes the instruction accepted, the production process in progress, the production process completed, etc.

As the results of the production activity, the contents of respective items about the video K7, the audio K8, and the material gathering data K9 shown in Fig. 12 is inputted.

The writing to the items of Figs. 11 and 12 is performed on a per scene number basis. For example, even if the material gathering activity is performed for scene 1 only and the resulting information is inputted to each item with scene 2 and subsequent scenes left unfilled, the process can proceed to the editing activity for scene 1.

[0129]

<The editing activity (the editing group: the information processing apparatus 6)>

The information processing apparatus 6 acquires the composition table data having the items of Fig. 13. The editing group performs the editing activity after checking the already posted information in the items of the scene K1,

the cut K2, and the planning intention K3. And at this moment, the editing process is performed using the video and audio already inputted by the material gathering group and the production group as the items of the composition table of Figs. 11 and 12.

The video and audio as the editing results are inputted to the items of the edited video K10, and the edited audio K11 of Fig. 13. The composition table itself cannot be edited, but the results are linked. More specifically, link information of the edited video and audio data is written.

A link is established with the edit effects (such as wiping in screen transition) and superimposing in the items of the edit data K12.

Information is inputted to the editing note.

The progress status of the editing activity is written in the progress column. The wording written in the progress column includes the editing process in progress, the editing completed, etc.

[0130]

Each group performs the instructed job thereof, referencing the composition table data, and reflects the job results in the composition table as described above, for example.

Each group views the composition table to learn the instruction and the job statuses of the other groups, and

starts any job ready to start on a per scene unit. The job can thus be flexibly and smoothly performed.

Since the video and audio data captured by the material gathering and production process, and the edited video and audio data are linked to the composition table, any group in need can check the content of the video etc., at any time. Under the production direction of the planning and composition group, the video is checked and a raw video is smoothly checked during the editing process of the editing group.

When the material gathering and production of all scenes are complete for all the scenes as a result, the content of the captured and produced video data is arranged in the composition table in the order planned at the planning phase. Therefore, the editing group simply performs a slight adjustment on the scenes and the cuts, and performs a finishing process on the entire video program. The jobs are thus efficiently performed.

[0131]

The composition table data is accessed by each group, and data is input at any time.

It is required that the content of the composition table be continuously updated to each group, and that the updating of the items in the content of the composition table covered by each group be facilitated.

[0132]

As for the data inputting, the range of inputting (for modification and addition) on the composition table performed by each group or a person in charge is limited depending on the content of the job of each group and the range of authority of each group.

For example, one of a material gathering ID or a production ID identifies input-enabled items, and both a person-in-charge ID and a password identify input-enabled items. Since the input-enabled items are set to be different from person to person, confusion of information in the composition table data is avoided. Information is thus inputted by only a person having a right authority.

The material gathering ID, the production ID, and the person-in-charge ID need to be unique in the usage of the system.

[0133]

To keep the content of the composition table updated to each group, the following synchronization process is performed.

An input operation to the composition table is performed by inputting one of the material gathering ID and the production ID or both the person-in-charge ID and the password and by issuing an execution command. In principle, the content of the data in the material gathering and

production field is automatically kept identical to the content of the data in the composition table site 3. When data is inputted to the composition table in the terminal at a given group, the same data is inputted to the composition table site 3. When the terminal of another group accesses and views the composition table site 3 immediately subsequent to the data inputting, the composition table in the updated state thereof is viewed.

During the same material gathering and production, the composition table needs frequently partially modifying. The range of items for performing the synchronization process prior to the issue of the execution command can be selectively set.

[0134]

Thus, the embodiments have been described. A specific system structure, an arrangement and functions of the terminal, a content of the composition table, and processes to the composition table other than those described above are contemplated.

[0135]

A recordable and playable disk medium, such as a magneto-optical disk, and a phase-change recording disk, is preferred as the disk 90 in the embodiments. Instead of the disk 90, another type of medium, such as a memory card containing a flash memory, may be used. Any medium can work

as long as the medium having a capacity relatively sufficient to store the video data can record and replay the video and audio data and the composition table data.

[0136]

The program of the embodiment of the present invention is a program executed by, for example, a personal computer or an image pickup device, each having the functions of the above-referenced terminal.

Further, the supply of the program is easy if a recording medium of the embodiment of the present invention storing the program of the present invention is used, and the present invention can be widely provided.

[0137]

The program of the embodiment of the present invention can be stored beforehand in an HDD as a recording medium built in the personal computer or the image pickup device, or in a ROM of the CPU or the like.

Alternatively, the program of the embodiment of the present invention can be stored (recorded) temporarily or permanently in a removable recording medium such as flexible disk, a CD-ROM (Compact Disk Read Only Memory), an MO (Magneto-optical) disk, a DVD (Digital Versatile Disk), a magnetic disk, or a semiconductor memory. The removable recording medium is thus supplied as so-called package software.

The program of the embodiment of the present invention is installed from the removable recording medium to the personal computer or the like. Furthermore, the program of the embodiment of the present invention can be downloaded to the personal computer from a download site via a network such as a LAN (Local Area Network) or the Internet.

[0138]

[Advantages]

As is understood from the aforementioned description, in the present invention, the composition table providing apparatus supplies each terminal for viewing with the composition table data containing items required for the production of the video program and the variety of information. Each terminal, namely, the terminal of each work group is configured to be able to view the composition table data. Therefore, each work group can know the instruction of the work or the result of the work of the other group for example, according to the contents described in the composition table data, and the required work based on the content of the composition table data can be proceeded. That is, the instruction can be confirmed and the video, audio, or the like as a status and the work results of another group can be arbitrarily confirmed by viewing the composition table data as needed. Thereby, work efficiency of the group is significantly improved. Further,

a change of the instruction and the like can immediately be responded.

[0139]

The terminal generates the composition table data including the items required for the production of the video program, and transmits the generated composition table data to the composition table providing apparatus. Since the composition table providing apparatus receives basic composition table data, each terminal can view the composition table data. Such a terminal is appropriate as a terminal for the planning and composition group, for example.

The terminal generates the input information for the item relating to the material gathering and the production instruction in the composition table data and transmits the input information to the composition table providing apparatus to write the input information onto the composition table data. The instructions for the material gathering and production are thus provided to the other groups. It is easy to add or modify instructions at any time.

By viewing the composition table data, another terminal recognizes the instructions and a modification in the instructions. Production and direction of the video program are flexibly performed. Such a terminal is appropriate as a terminal for the planning and composition group, for example.

[0140]

In the terminal, the input information to an item relating to one of a material gathering instruction and a production instruction is generated in the composition table data, transmitted to the composition table providing apparatus, and written to the composition table data. Thereby, the information during the material gathering and the information during the production can be provided to the other group at any time. For example, this is appropriate as a terminal of, for example, the material gathering and the production group.

The terminal generates the input information for the item relating to the contents of the video and audio that are captured or produced in the composition table data and transmits the input information to the composition table providing apparatus to write the input information onto the composition table data. The video and audio information obtained as a result of the material gathering and the production can be transferred to another work group as necessary. Such a terminal is appropriate as a terminal for the material gathering group and the production group.

[0141]

The terminal generates the input information for the item relating to the editing of the composition table data, and transmits the input information to the composition table

providing apparatus to write the input information on the composition table data. Information concerning the editing work and the editing results can be transferred to another work group as necessary. Such a terminal is appropriate as, for example, a terminal for the editing group.

[0142]

When the terminal acquires the composition table data from the composition table providing apparatus for viewing, only a part of the composition table data may be acquired. A terminal having a relatively low communication performance has no problem with viewing the composition table data even if the composition table data is large in size. For example, the material gathering group views items relating to the material gathering operation only.

[0143]

Thus, each terminal performs the job while viewing and inputting data to the composition table data. Instruction transmission, requests, confirmation of job results, information notice transmission, job progress learning, etc. are easily, quickly and properly performed among the large number of groups. Production efficiency is heightened. The groups can flexibly modify the composition table data, and instructions, and modify or correct instructions and the content of the instructions in accordance with various situations.

Since the video and audio are exchanged among the groups, for example, the underlying concept and images are easy to convey. The material gathering and the production are easily performed in alignment with the underlying concept.

If description information relating to the content of the video and audio information is itemized together with the video and music information in the composition table data, the video and audio and the like, which are gathered when editing, are easily figured out, and an appropriate editing operation is easily performed. An optimum working environment for each group can be produced.

[0144]

Furthermore, according to the program of the present invention, a video program production system and a terminal that achieves the aforementioned advantages can be realized. In addition, the program-recording medium of the present invention is appropriate for realizing and widely providing the terminal and a terminal processing method that achieve the aforementioned advantage.

[Brief Description of the Drawings]

[Fig. 1] Fig. 1 is an explanatory view of a video program production system of one embodiment of the present invention.

[Fig. 2] Fig. 2 is an explanatory view of a work flow

of producing a video program of the embodiment.

[Fig. 3] Fig. 3 is a block diagram of a composition table providing apparatus of the embodiment.

[Fig. 4] Fig. 4 is a block diagram of a terminal of the embodiment.

[Fig. 5] Fig. 5 is a block diagram of an image pickup device of the embodiment.

[Fig. 6] Fig. 6 is an explanatory view of a composition table of the embodiment.

[Fig. 7] Fig. 7 is an explanatory view of a production schedule table of the embodiment.

[Fig. 8] Fig. 8 is an explanatory view of a viewing and inputting process to the composition table of the embodiment.

[Fig. 9] Fig. 9 is an explanatory view of communications between the image pickup device and a field PC, and a composition table site of the embodiment.

[Fig. 10] Fig. 10 is an explanatory view of the viewing and inputting process to the composition table by a planning and composition group of the embodiment.

[Fig. 11] Fig. 11 is an explanatory view of the viewing and inputting process to the composition table by a material gathering group of the embodiment.

[Fig. 12] Fig. 12 is an explanatory view of the viewing and inputting process to the composition table by

the material gathering group of the embodiment.

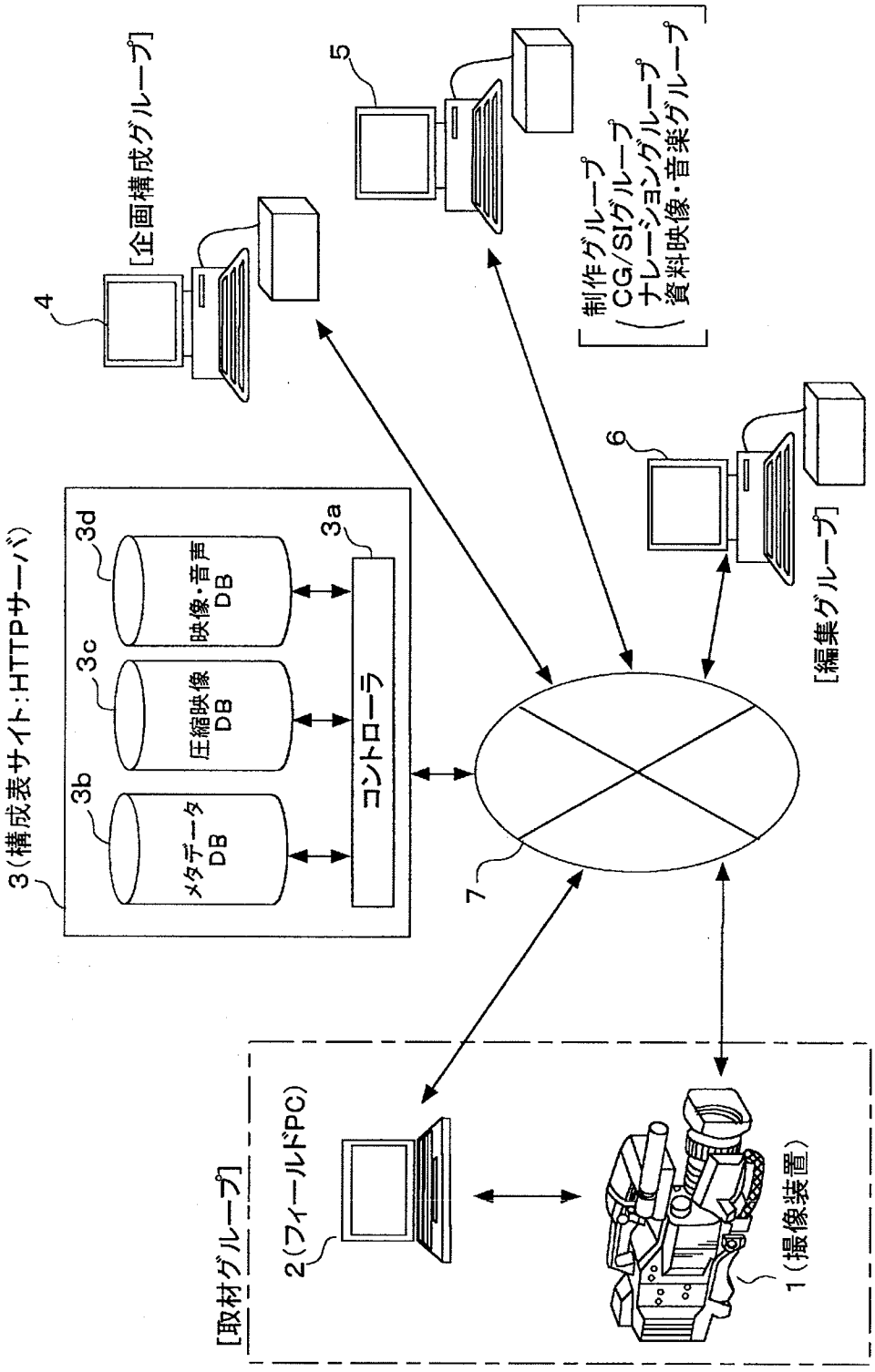
[Fig. 13] Fig. 13 is an explanatory view of the viewing and inputting process to the composition table by an editing group of the embodiment.

[Fig. 14] Fig. 14 is an explanatory view of a work flow of a known video program production.

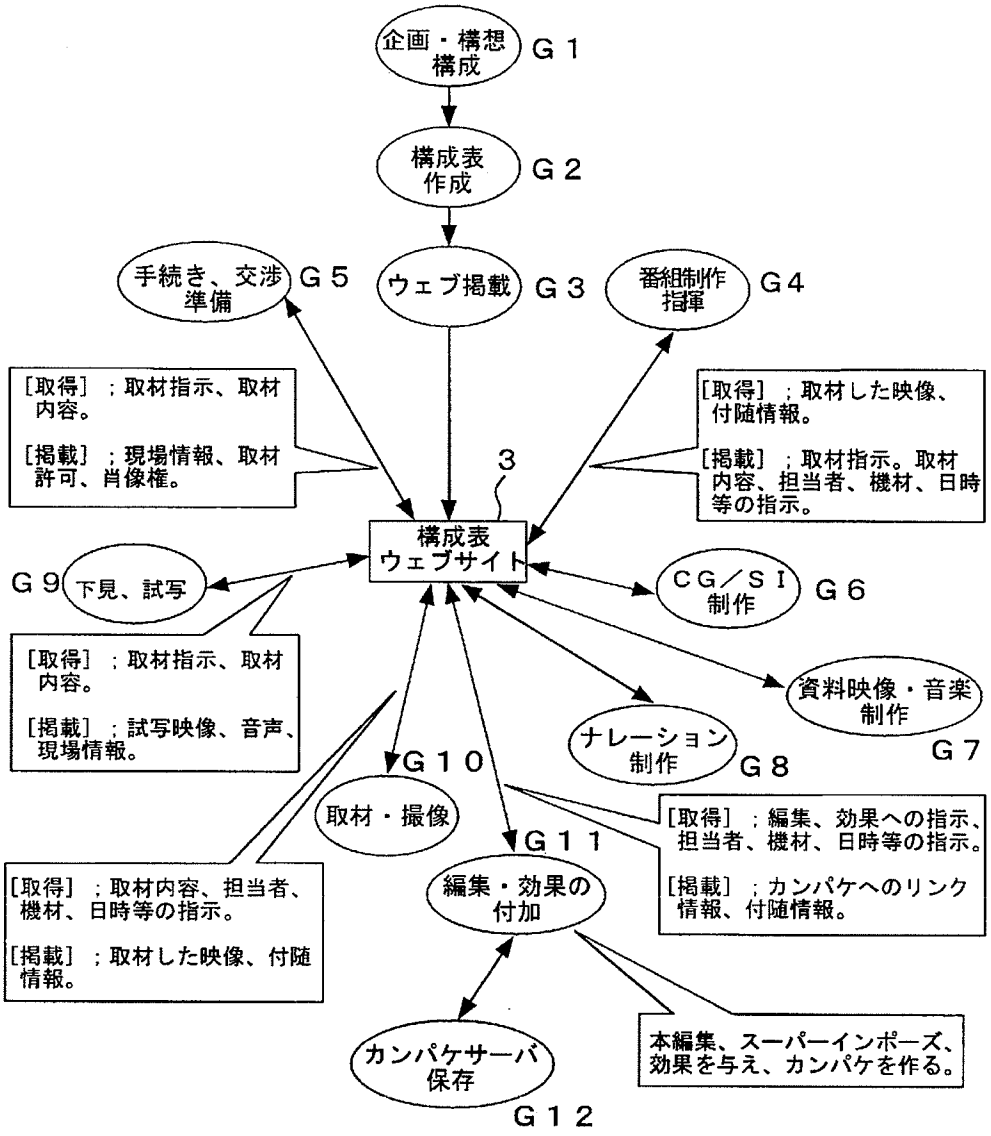
[Reference Numerals]

1: image pickup device, 2: field PC, 3: composition table site, 4, 5, 6: information processing apparatus, 7: network, 11: system controller, 12: camera section, 13: image pickup unit, 14: video signal processor, 15: camera controller, 16: record and play section, 17: encoding and decoding unit, 18: disk drive, 19: recording and playing controller, 20: external interface, 21: communication unit, 22: ROM, 23: RAM, 24: flash memory, 27: operation unit, 41: CPU, 43: memory, 45: input unit, 47: display, 49: communication processor, 50: network interface

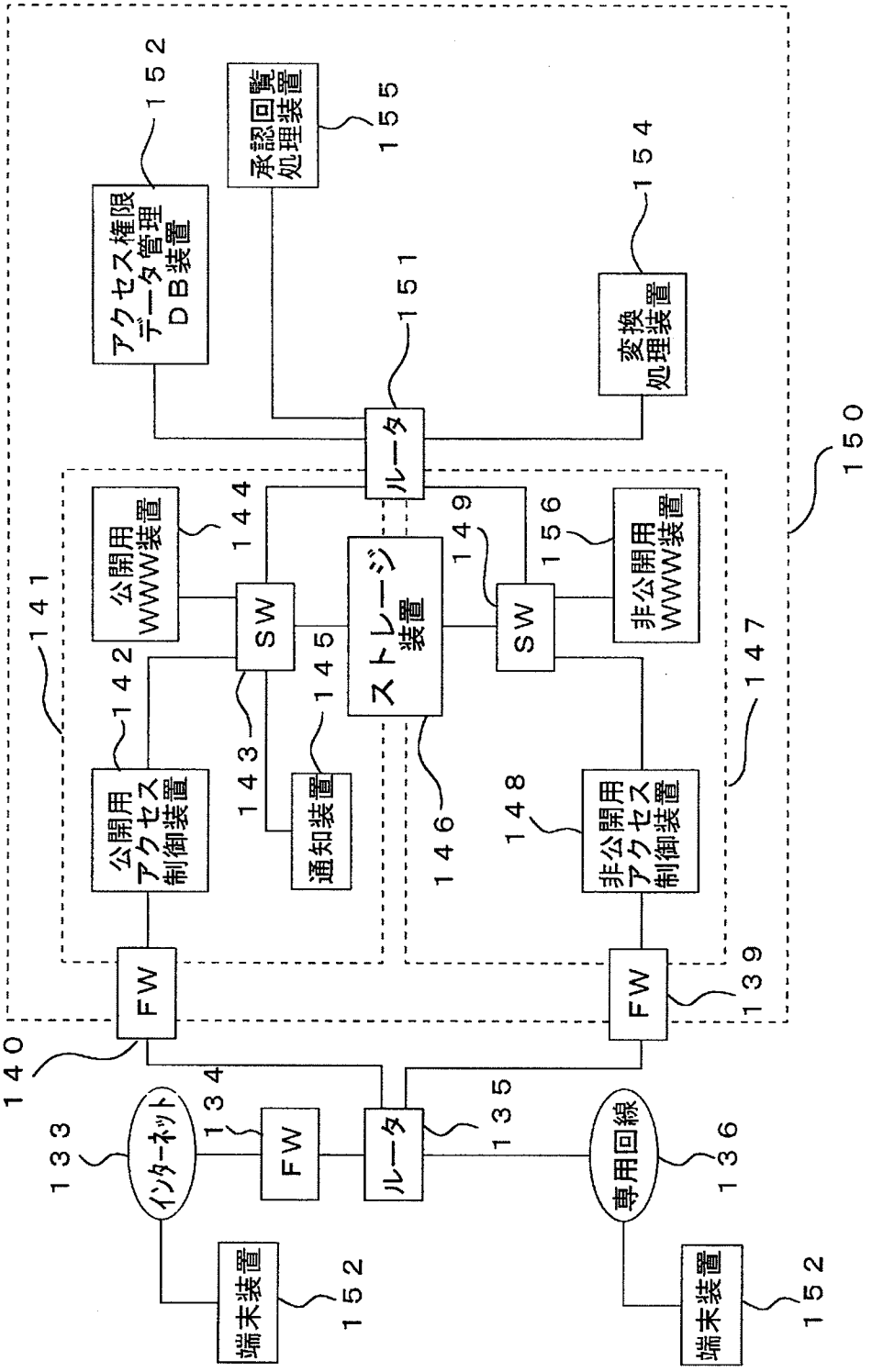
【書類名】　図面
【図１】


[企画構成グループ]
4
5
制作グループ
CG/SIグループ
ナレーショングループ
資料映像・音楽グループ
6
[編集グループ]
3(構成表サイト:HTTPサーバ)
3d
映像・音声 DB
3c
圧縮映像 DB
3b
メタデータ DB
3a
コントローラ
7
[取材グループ]
2(フィールドPC)
1(撮像装置)

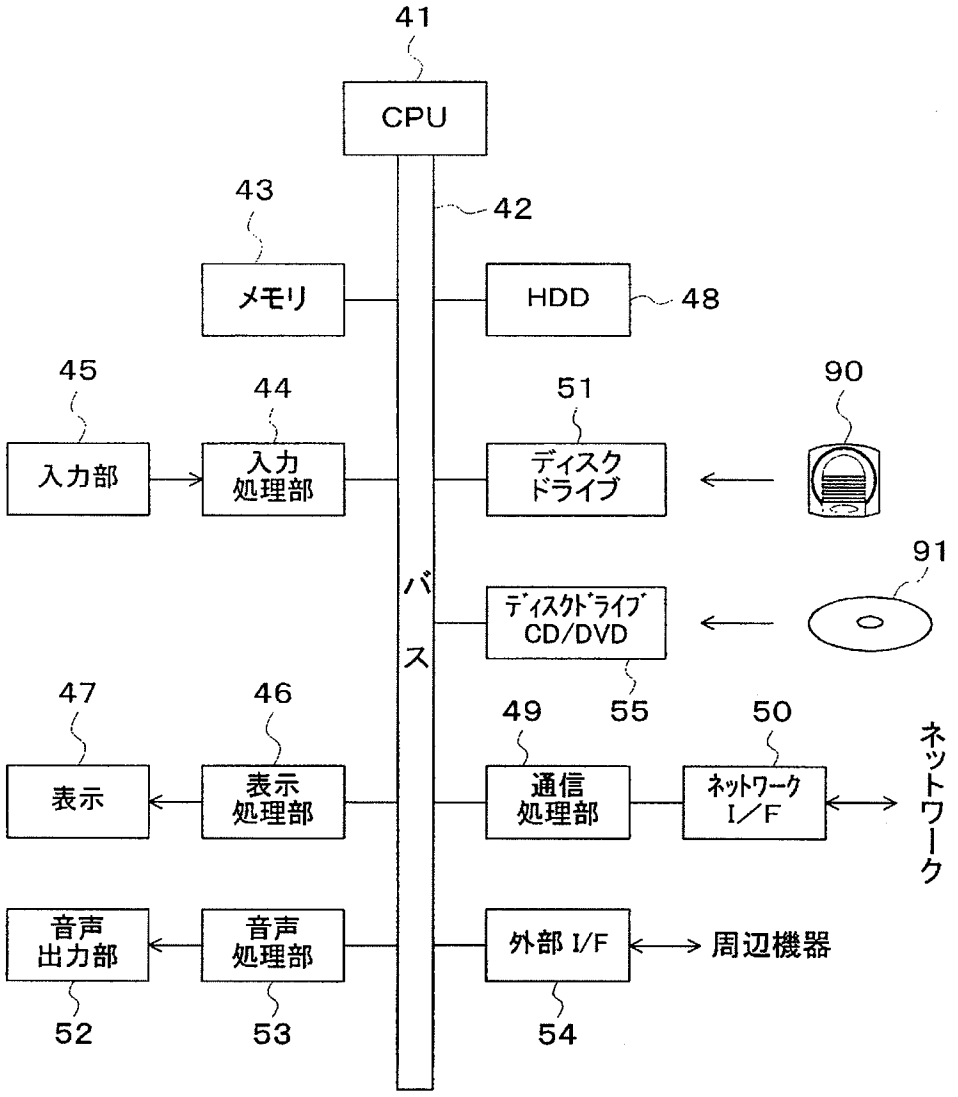
【図２】


企画・構想
構成
Ｇ１
構成表
作成
Ｇ２
手続き、交渉
準備
Ｇ５
ウェブ掲載
Ｇ３
番組制作
指揮
Ｇ４
［取得］；取材指示、取材内容。
［掲載］；現場情報、取材許可、肖像権。
［取得］；取材した映像、付随情報。
［掲載］；取材指示。取材内容、担当者、機材、日時等の指示。
3
構成表
ウェブサイト
Ｇ９
下見、試写
ＣＧ／ＳＩ
制作
Ｇ６
［取得］；取材指示、取材内容。
［掲載］；試写映像、音声、現場情報。
資料映像・音楽
制作
Ｇ７
ナレーション
制作
Ｇ８
Ｇ１０
取材・撮像
Ｇ１１
［取得］；編集、効果への指示、担当者、機材、日時等の指示。
［掲載］；カンパケへのリンク情報、付随情報。
［取得］；取材内容、担当者、機材、日時等の指示。
［掲載］；取材した映像、付随情報。
編集・効果の
付加
本編集、スーパーインポーズ、効果を与え、カンパケを作る。
カンパケサーバ
保存
Ｇ１２

【図３】

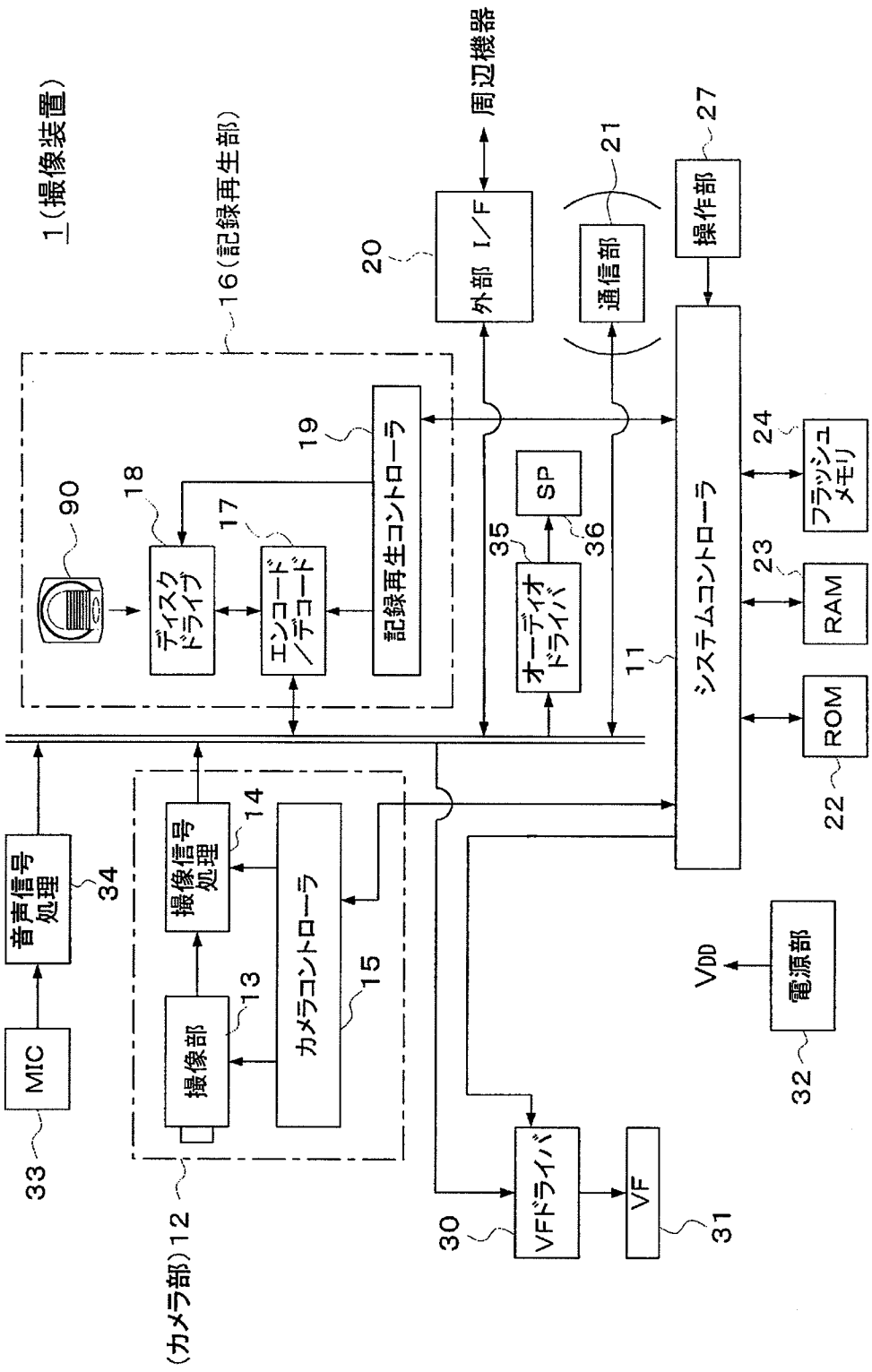

アクセス権限データ管理DB装置
152
承認回覧処理装置
155
154
変換処理装置
151
ルータ
150
公開用WWW装置
144
SW
145
ストレージ装置
149
SW
156
非公開用WWW装置
141
142
公開用アクセス制御装置
143
通知装置
146
148
非公開用アクセス制御装置
147
FW
139
FW
140
インターネット
133
134
FW
ルータ
135
専用回線
136
端末装置
152
端末装置
152

【図４】



端末装置
（パーソナルコンピュータ）

【図５】


1（撮像装置）
16（記録再生部）
周辺機器
20
外部 I／F
21
通信部
27
操作部
90
18
ディスクドライブ
17
エンコード／デコード
19
記録再生コントローラ
35
オーディオドライバ
SP
36
11
システムコントローラ
24
フラッシュメモリ
23
RAM
ROM
22
MIC
33
音声信号処理
34
撮像信号処理
14
撮像部
13
カメラコントローラ
15
（カメラ部）12
30
VFドライバ
VF
31
VDD
電源部
32

【図６】

シーン(K1)		カット(K2)		意図(K3)		映像(K4)	取材・制作指示(K5)							
シーン番号	シーンタイトル	カット番号	カットタイトル	筋書	解説	静止画	取材・制作番号	場所	開始日時	完了日時	担当者	機材	指示メール発	進捗
							#001							
							#002							
							#003							
							#004							
							#005							
							#006							

取材・制作情報(K6)								
メディアID	記録区間*	場所	開始日時	完了日時	担当者(+ID)	機材	取材・制作メ	著作権

映像(K7)					音声(K8)				取材データ(K9)		
静止画	ローレゾ動画	オリジナル動画	UMID	時間	CH1	CH2	CH3	CH4	カメラ姿勢	カメラ数値	環境

編集済み映像(K10)					編集済み音声(K11)				編集データ(K12)		
静止画	ローレゾ動画	ハイレゾ動画	UMID	時間	CH1	CH2	CH3	CH4	編集効果	スーパー	メモ

【図７】

制作スケジュール表

		1/7	1/10	1/21	1/28	2/04	2/11
構想書		◇済み					
構成書案		◇済み					
ウェブサイト掲載			◇済み				
取材							
	#001			◇下見	◇現場準備	◇撮像	
	#002				◇下見	◇現場準備	◇撮像
	#003				◇下見	◇現場準備	◇撮像
	#004			◇下見	◇現場準備	◇撮像	
	#005				◇下見	◇現場準備	◇撮像
	#006				◇下見	◇現場準備	◇撮像

【図8】

	シーンK1		カット(K2)		意図(K3)		映像(K4)	取材・制作指示(K5)							
	シーン番号	シーンタイトル	カット番号	カットタイトル	筋書	解説	静止画	取材・制作番号	場所	開始日時	完了日時	担当者(+ID)	機材	指示メール発信	進捗
企画構成グループ	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○
フィールドPC/PDA	○	○	○	○	○	○	○	○	○	○	○	○	○		●
撮像装置	○	○	○	○				○	○	○	○	○	○		●
制作グループ	○	○	○	○	○	○	○	○	○	○	○	○	○		●
編集グループ	○	○	○	○	○	○	○	○	○	○	○	○	○		●

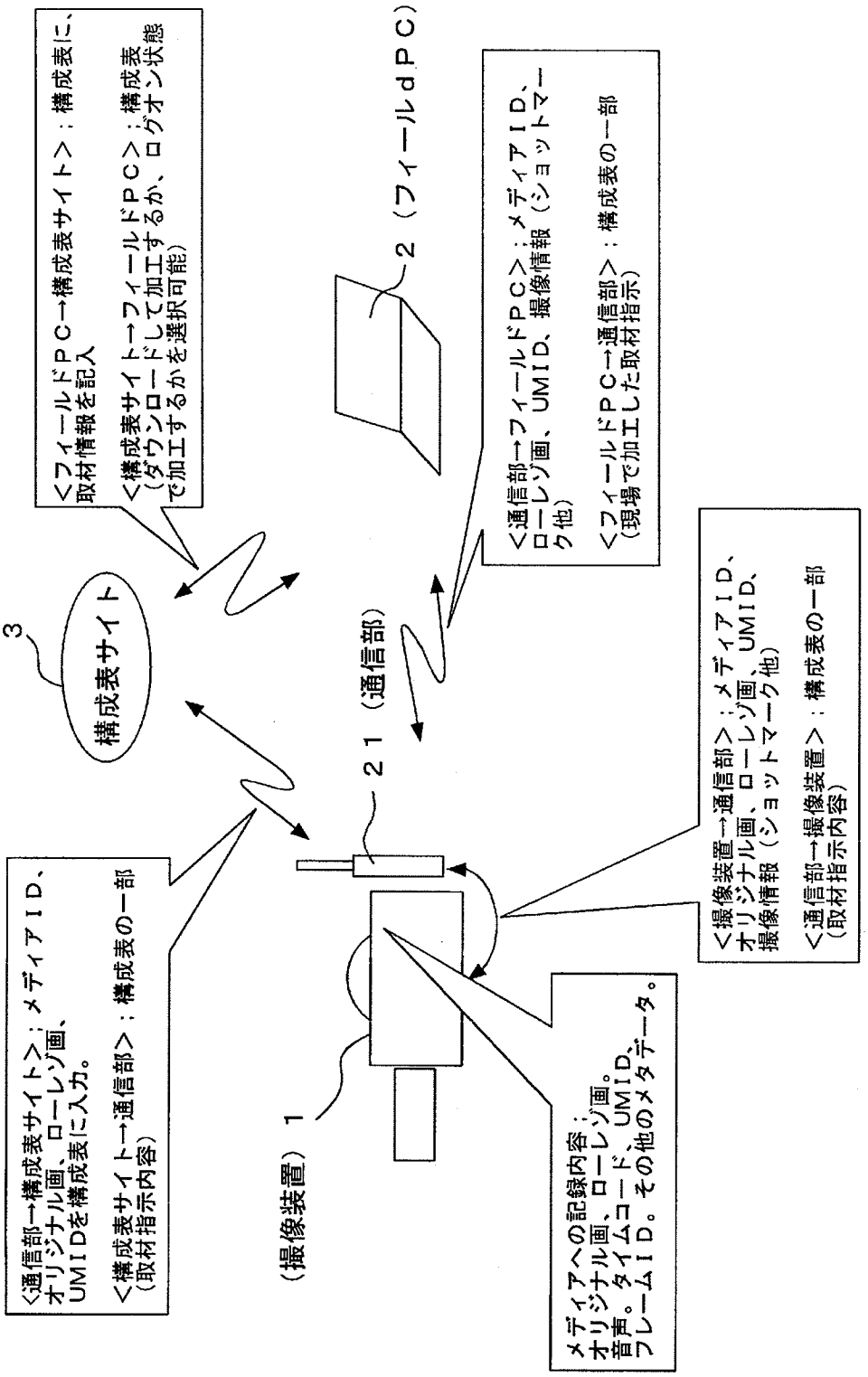
○ 閲覧する項目

● 入力する項目

	取材・制作情報(K6)									映像(K7)					音声(K8)				データ(K9)		
	メディアID	記録区間*	場所	開始日時	完了日時	担当者(+ID)	機材	取材・制作メモ	著作権	静止画	ローレゾ動画	オリジナル動画	UMID	時間	CH1	CH2	CH3	CH4	カメラ姿勢	カメラ数値	環境
企画構成グループ	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
フィールドPC/PDA	○	○	●	●	●	●	●	●	●	●	○		○	○	○	○	○	○	○	○	●
撮像装置	●	●	●	●	●	●	●	○	○		●	●	●	●	●	●	●	●	●	●	●
制作グループ	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○
編集グループ	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

	編集済み映像(K10)					編集済み音声(K11)				編集データ(K12)		
	静止画	ローレゾ動画	ハイレゾ動画	UMID	時間	CH1	CH2	CH3	CH4	編集効果	スーパー	メモ
企画構成グループ	○	○	○	○	○	○	○	○	○	○	○	○
フィールドPC/PDA												
撮像装置												
制作グループ	○	○	○	○	○	○	○	○	○	○	○	○
編集グループ	●	●	●	●	●	●	●	●	●	●	●	●

【図９】


3
構成表サイト
<フィールドＰＣ→構成表サイト＞：構成表に、取材情報を記入
<構成表サイト→フィールドＰＣ＞：構成表（ダウンロードして加工するか、ログオン状態で加工するかを選択可能）
２（フィールドＰＣ）
<通信部→フィールドＰＣ＞：メディアＩＤ、ローレゾ画、ＵＭＩＤ、撮像情報（ショットマーク他）
<フィールドＰＣ→通信部＞：構成表の一部（現場で加工した取材指示）
２１（通信部）
<通信部→構成表サイト＞：メディアＩＤ、オリジナル画、ローレゾ画、ＵＭＩＤを構成表に入力。
<構成表サイト→通信部＞：構成表の一部（取材指示内容）
（撮像装置）１
<撮像装置→通信部＞：メディアＩＤ、オリジナル画、ローレゾ画、ＵＭＩＤ、撮像情報（ショットマーク他）
<通信部→撮像装置＞：構成表の一部（取材指示内容）
メディアへの記録内容：
オリジナル画、ローレゾ画。
音声。タイムコード、ＵＭＩＤ、
フレームＩＤ。その他のメタデータ。

【図１０】

企画意図部分と、取材・制作指示

シーン(K1)		カット(K2)		意図(K3)		映像(K4)	取材・制作指示(K5)							
シーン番号	シーンタイトル	カット番号	カットタイトル	筋書	解説	静止画	取材・制作番号	場所	開始日時	完了日時	担当者	機材	指示メール発信	進捗
1		1					#001							
		2					#002							
2		1					#003							
		2					#004							
3		1					#005							
		2					#006							

【図１１】

企画意図部分と、取材・制作指示・情報

シーン(K1)		カット(K2)		意図(K3)		映像(K4)	取材・制作指示(K5)								取材・制作情報(K6)								
シーン番号	シーンタイトル	カット番号	カットタイトル	筋書	解説	静止画	取材・制作番号	場所	開始日時	完了日時	担当者(+ID)	機材	指示メール発信	進捗	メディアID	記録区間*	場所	開始日時	完了日時	担当者(+ID)	機材	取材・制作メモ	著作権
1		1					#001																
		2					#002																
2		1					#003																
		2					#004																
3		1					#005																
		2					#006																

【図１２】

企画意図部分と、プログラム内容部分

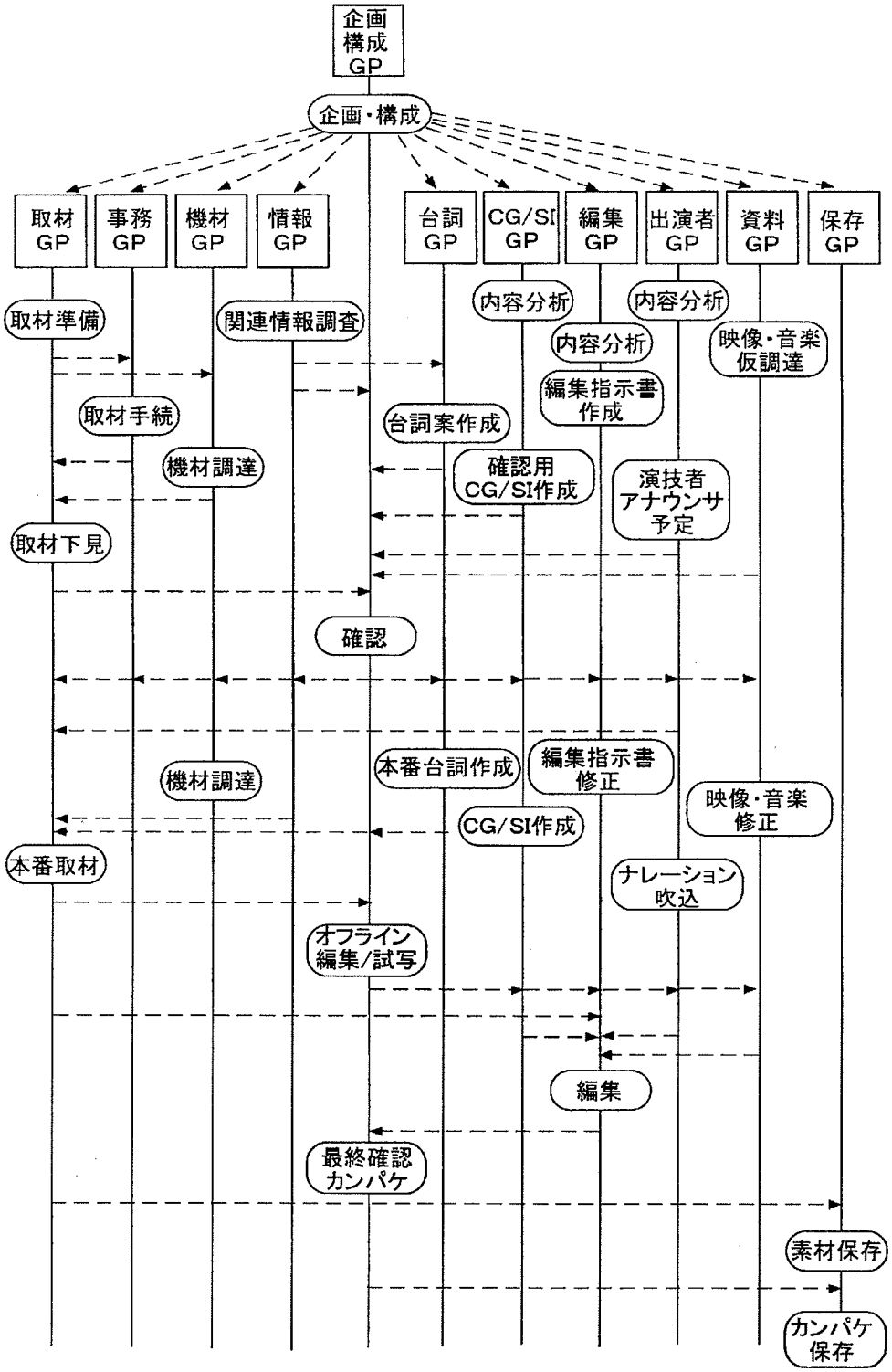
シーン(K1)		カット(K2)		意図(K3)		映像(K7)					音声(K8)				データ(K9)		
シーン番号	シーンタイトル	カット番号	カットタイトル	筋書	解説	静止画	ローレゾ動画	オリジナル動画	UMID	時間	CH1	CH2	CH3	CH4	カメラ姿勢	カメラ数値	環境
1		1															
		2															
2		1															
		2															
3		1															
		2															

【図１３】

企画意図部分と、プログラム内容部分（編集済み内容）

シーン（K1）		カット（K2）		意図（K3）		編集済み映像（K10）					編集済み音声（K11）				編集データ（K12）		
シーン番号	シーンタイトル	カット番号	カットタイトル	筋書	解説	静止画	ローレゾ動画	ハイレゾ動画	UMID	時間	CH1	CH2	CH3	CH4	編集効果	スーパー	メモ
1		1															
		2															
2		1															
		2															
3		1															
		2															

【図１４】


企画
構成
GP
企画・構成
取材
GP
事務
GP
機材
GP
情報
GP
台詞
GP
CG/SI
GP
編集
GP
出演者
GP
資料
GP
保存
GP
取材準備
関連情報調査
内容分析
内容分析
内容分析
映像・音楽
仮調達
編集指示書
作成
取材手続
台詞案作成
機材調達
確認用
CG/SI作成
演技者
アナウンサ
予定
取材下見
確認
機材調達
本番台詞作成
編集指示書
修正
映像・音楽
修正
CG/SI作成
本番取材
ナレーション
吹込
オフライン
編集/試写
編集
最終確認
カンパケ
素材保存
カンパケ
保存

[Name of Document] Drawings

Fig. 1

a: MATERIAL GATHERING GROUP

2: FIELD PC

1: IMAGE PICKUP DEVICE

3: COMPOSITION TABLE SITE: HTTP SERVER

3a: CONTROLLER

3b: META DATA DB

3c: COMPRESSED VIDEO DB

3d: AUDIO VISUAL DB

4: PLANNING AND COMPOSITION GROUP

5: PRODUCTION GROUP

CG/SI GROUP

NARRATION GROUP

MATERIAL VIDEO·MUSIC GROUP

Fig. 2

a:

[COLLECTED ITEMS]: MATERIAL GATHERING INSTRUCTION, CONTENT OF MATERIAL.

[POSTED ITEMS]: SCENE INFORMATION, MATERIAL GATHERING PERMIT, RIGHT OF PORTRAIT.

b:

[COLLECTED ITEMS]: MATERIAL GATHERING INSTRUCTION, CONTENT OF MATERIAL.

[POSTED ITEMS]: TRIAL VIDEO, AUDIO, SCENE INFORMATION.

C:

[COLLECTED ITEMS]: INSTRUCTION RELATING TO CONTENT, PERSON IN CHARGE, EQUIPMENT, DATE AND TIME.

[POSTED ITEMS]: CAPTURED VIDEO, ADDITIONAL INFORMATION.

d:

[COLLECTED ITEMS]: CAPTURED VIDEO, ADDITIONAL INFORMATION.

[POSTED ITEMS]: MATERIAL GATHERING INSTRUCTION, INSTRUCTION RELATING TO CONTENT, PERSON IN CHARGE, EQUIPMENT, DATE AND TIME.

e:

[COLLECTED ITEMS]: INSTRUCTIONS TO EDITING, AND EFFECT ADDITION, AND INSTRUCTIONS RELATING TO PERSON IN CHARGE, EQUIPMENT, DATE AND TIME.

[POSTED ITEMS]: LINK INFORMATION AND ADDITIONAL INFORMATION RELATING TO COMPLETE PACKET.

f:

PACKET FINALIZED BY FULL EDITING, SUPERIMPOSING, AND EFFECTS ADDITION.

3: COMPOSITION TABLE WEBSITE

G1: PLAN AND CONCEPT DEVELOPMENT

G2: COMPOSITION TABLE

G3: WEB POSTING

G4: PROGRAM PRODUCTION AND DIRECTION

G5: PROCEDURE, NEGOTIATION, AND PREPARATION

G6: PRODUCTION OF CG/SI

G7: PRODUCTION OF LIBRARY PICTURE AND MUSIC

G8: NARRATION PRODUCTION

G9: PRELIMINARY INSPECTION, TRIAL VIDEO TAKING

G10: MATERIAL GATHERING AND VIDEO TAKING

G11: EDITING AND ADDITION OF EFFECTS

G12: STORAGE OF COMPLETE PACKET IN SERVER

Fig. 3

152: TERMINAL

152: TERMINAL

133: INTERNET

135: ROUTER

136: DEDICATED LINE

142: PUBLIC ACCESS CONTROLLER

145: NOTIFIER

148: NON-PUBLIC ACCESS CONTROLLER

144: PUBLIC WWW APPARATUS

146: STORAGE DEVICE

156: NON-PUBLIC WWW APPARATUS

151: ROUTER

152: ACCESS RIGHT DATA MANAGEMENT DB

154: CONVERSION PROCESSOR

155: AUTHORIZATION NOTICE PROCESSOR

Fig. 4

45: INPUT UNIT

47: DISPLAY

52: AUDIO OUTPUT UNIT

43: MEMORY

44: INPUT PROCESSOR

46: DISPLAY PROCESSOR

53: AUDIO PROCESSOR

51: DISK DRIVE

55: DISK DRIVE CD/DVD

49: COMMUNICATION PROCESSOR

54: EXTERNAL I/F

50: NETWORK I/F

a: TERMINAL (PERSONAL COMPUTER)

b: PERIPHERAL DEVICES

c: NETWORK

d: BUS

Fig. 5

12: CAMERA SECTION

30: VF DRIVER

13: IMAGE PICKUP UNIT

15: CAMERA CONTROLLER

32: POWER SUPPLY

34: AUDIO SIGNAL PROCESSOR

14: VIDEO SIGNAL PROCESSOR

18: DISK DRIVE

17: ENCODING AND DECODING UNIT

19: RECORDING AND PLAYING CONTROLLER

35: AUDIO DRIVER

11: SYSTEM CONTROLLER

24: FLASH MEMORY

1: IMAGE PICKUP DEVICE

16: RECORD AND PLAY SECTION

20: EXTERNAL INTERFACE

21: COMMUNICATION UNIT

27: OPERATION UNIT

a: PERIPHERAL DEVICE

Fig. 6

a: SCENE (K1)

b: CUT (K2)

c: INTENTION (K3)

d: VIDEO (K4)

e: MATERIAL GATHERING AND INSTRUCTION (K5)

f: SCENE NO.

g: SCENE TITLE

h: CUT NO.

i: CUT TITLE

j: SCENARIO

k: DESCRIPTION

l: STILL IMAGE

m: MATERIAL GATHERING NO.

n: LOCATION

o: DATE AND TIME OF START

p: DATE AND TIME OF END

q: PERSON IN CHARGE

r: EQUIPMENT

s: INSTRUCTION MAIL TRANSMISSION

t: PROGRESS

u: MATERIAL GATHERING AND PRODUCTION INFORMATION (K6)

v: MEDIA ID

w: RECORDING SESSION*

x: LOCATION

y: DATE AND TIME OF START

z: DATE AND TIME OF END

A: PERSON IN CHARGE (+ID)

B: EQUIPMENT

C: NOTE FOR MATERIAL GATHERING AND PRODUCTION

D: COPYRIGHT

E: VIDEO (K7)

F: AUDIO (K8)

G: DATA FOR MATERIAL GATHERING (K9)

H: STILL IMAGE

I: LOW-RESOLUTION MOVING IMAGE

J: ORIGINAL MOVING IMAGE

K: TIME

L: CAMERA POSTURE

M: CAMERA PARAMETERS

N: ENVIRONMENT

O: EDITED VIDEO (K10)

P: EDITED AUDIO (K11)

Q: EDIT DATA (K12)

R: STILL IMAGE

S: LOW-RESOLUTION MOVING IMAGE

T: HIGH-RESOLUTION MOVING IMAGE

U: TIME

V: EDIT EFFECT

W: SUPERIMPOSE

X: NOTE

Fig. 7

a: PRODUCTION SCHEDULE TABLE

b: CONCEPT PAPER

c: DRAFT CONCEPT PAPER

d: WEBSITE POSTING

e: MATERIAL GATHERING

f: COMPLETED

g: COMPLETED

h: COMPLETED

i: PRELIMINARY INSPECTION

j: PRELIMINARY INSPECTION

k: FIELD SETUP

l: PRELIMINARY INSPECTION

m: PRELIMINARY INSPECTION

n: PRELIMINARY INSPECTION

o: PRELIMINARY INSPECTION

p: FIELD SETUP

q: FIELD SETUP

r: VIDEO TAKING

s: FIELD SETUP

t: VIDEO TAKING

u: FIELD SETUP

v: FIELD SETUP

w: VIDEO TAKING

x: VIDEO TAKING

y: VIDEO TAKING

z: VIDEO TAKING

Fig. 8

a: PLANNING AND COMPOSITION GROUP

b: FIELD PC/PDA

c: IMAGE PICKUP DEVICE

d: PRODUCTION GROUP

e: EDITING GROUP

f: PLANNING AND COMPOSITION GROUP

g: FIELD PC/PDA

h: IMAGE PICKUP DEVICE

i: PRODUCTION GROUP

j: EDITING GROUP

k: PLANNING AND COMPOSITION GROUP

l: FIELD PC/PDA

m: IMAGE PICKUP DEVICE

n: PRODUCTION GROUP

o: EDITING GROUP

p: SCENE NO.

q: SCENE (K1)

r: SCENE TITLE

s: CUT NO.

t: CUT (K2)

u: CUT TITLE

v: SCENARIO

w: INTENTION (K3)

x: DESCRIPTION

y: VIDEO (K4)

z: STILL IMAGE

A: MATERIAL GATHERING AND PRODUCTION NO.

B: LOCATION

C: DATE AND TIME OF START

D: MATERIAL GATHERING AND PRODUCTION INSTRUCTION (K5)

E: DATE AND TIME OF END

F: PERSON IN CHARGE (+ID)

G: EQUIPMENT

H: INSTRUCTION MAIL TRANSMISSION

I: PROGRESS

J: ITEMS TO BE VIEWED

K: ITEMS TO BE INPUTTED

L: MEDIA ID

M: RECORDING SESSION*

N: LOCATION

O: DATE AND TIME OF START

P: MATERIAL GATHERING AND PRODUCTION INFORMATION (K6)

Q: DATE AND TIME OF END

R: PERSON IN CHARGE (+ID)

S: EQUIPMENT

T: NOTE FOR MATERIAL GATHERING AND PRODUCTION

U: COPYRIGHT

V: STILL IMAGE

W: LOW-RESOLUTION MOVING IMAGE

X: VIDEO (K7)

Y: ORIGINAL MOVING IMAGE

Z: TIME

1: AUDIO (K8)

2: CAMERA POSTURE

3: CAMERA PARAMETERS

4: DATA (K9)

5: ENVIRONMENT

6: STILL IMAGE

7: LOW-RESOLUTION MOVING IMAGE

8: HIGH-RESOLUTION MOVING IMAGE

9: EDITED VIDEO (K10)

10: TIME

11: EDITED AUDIO (K11)

12: EDIT EFFECT

13: SUPERIMPOSE

14: EDIT DATA (K12)

15: NOTE

Fig. 9

a:

<COMMUNICATION UNIT → COMPOSITION TABLE SITE>; INPUT MEDIA ID, ORIGINAL MOVING IMAGE, LOW-RESOLUTION IMAGE, AND UMID TO COMPOSITION TABLE

<COMPOSITION TABLE SITE → COMMUNICATION UNIT>; PART OF COMPOSITION TABLE (CONTENT OF MATERIAL GATHERING INSTRUCTION)

1: IMAGE PICKUP DEVICE

b:

RECORD CONTENT OF MEDIA;

ORIGINAL IMAGE, LOW-RESOLUTION IMAGE, AUDIO, TIME CODE, UMID,

FRAME ID, OTHER META DATA

c:

<IMAGE PICKUP DEVICE → COMMUNICATION UNIT>; MEDIA ID, ORIGINAL IMAGE, LOW-RESOLUTION IMAGE, UMID, IMAGE PICKUP INFORMATION (SHOT MARK, ETC.)

<COMMUNICATION UNIT → IMAGE PICKUP DEVICE>; PART OF COMPOSITION TABLE (CONTENT OF MATERIAL GATHERING INSTRUCTION)

3: COMPOSITION TABLE SITE

21: COMMUNICATION UNIT

d:

<FIELD PC → COMPOSITION TABLE SITE>; WRITE GATHERED DATA IN COMPOSITION TABLE

<COMPOSITION TABLE SITE → FIELD PC>; COMPOSITION TABLE (SELECTABLE BETWEEN MANIPULATION AFTER DOWNLOADING AND MANIPULATION IN LOG-ON STATE)

2: (FIELD Dpc)

e:

<COMMUNICATION UNIT → FIELD PC>; MEDIA ID, LOW-RESOLUTION IMAGE, UMID, IMAGE PICKUP INFORMATION (SHOT MARK, ETC.)

<FIELD PC → COMMUNICATION UNIT>; PART OF COMPOSITION TABLE (INSTRUCTION FOR MANIPULATION IN FIELD)

Fig. 10

a: PART OF PLANNING INTENTION AND INSTRUCTION FOR MATERIAL

GATHERING AND PRODUCTION

b: SCENE (K1)

c: SCENE NO.

d: SCENE TITLE

e: CUT NO.

f: CUT TITLE

g: SCENARIO

h: DESCRIPTION

i: STILL IMAGE

j: DATE AND TIME OF START

k: DATE AND TIME OF END

l: PERSON IN CHARGE

m: EQUIPMENT

n: INSTRUCTION MAIL TRANSMISSION

o: PROGRESS

p: CUT (K2)

q: INTENTION (K3)

r: VIDEO (K4)

s: MATERIAL GATHERING AND PRODUCTION NO.

t: LOCATION

u: MATERIAL GATHERING AND PRODUCTION INSTRUCTION (K5)

Fig. 11

a: PART OF PLANNING INTENTION AND INFORMATION OF MATERIAL GATHERING AND PRODUCTION

b: SCENE (K1)

c: SCENE NO.

d: SCENE TITLE

e: CUT NO.

f: CUT TITLE

g: SCENARIO

h: DESCRIPTION

i: STILL IMAGE

j: DATE AND TIME OF START

k: DATE AND TIME OF END

l: PERSON IN CHARGE (+ID)

m: EQUIPMENT

n: INSTRUCTION MAIL TRANSMISSION

o: PROGRESS

p: CUT (K2)

q: INTENTION (K3)

r: VIDEO (K4)

s: MATERIAL GATHERING AND PRODUCTION NO.

t: LOCATION

u: MATERIAL GATHERING AND PRODUCTION INSTRUCTION (K5)

v: MEDIA ID

w: RECORDING SESSION*

x: LOCATION

y: DATE AND TIME OF START

z: DATE AND TIME OF END

A: PERSON IN CHARGE (+ID)

B: EQUIPMENT

C: NOTE FOR MATERIAL GATHERING AND PRODUCTION

D: COPYRIGHT

E: INFORMATION OF MATERIAL GATHERING AND PRODUCTION (K6)

Fig. 12

a: PART OF PLANNING INTENTION AND PART OF PROGRAM CONTENT

b: SCENE (K1)

c: SCENE NO.

d: SCENE TITLE

e: CUT NO.

f: CUT TITLE

g: SCENARIO

h: DESCRIPTION

i: STILL IMAGE

j: LOW-RESOLUTION MOVING IMAGE

k: ORIGINAL MOVING IMAGE

l: TIME

m: CAMERA POSTURE

n: CAMERA PARAMETER

o: ENVIRONMENT

p: CUT (K2)

q: INTENTION (K3)

r: VIDEO (K7)

s: AUDIO (K8)

t: DATA (K9)

Fig. 13

a: PART OF PLANNING INTENTION AND PART OF PROGRAM CONTENT (EDITED CONTENT)

b: SCENE (K1)

c: SCENE NO.

d: SCENE TITLE

e: CUT NO.

f: CUT TITLE

g: SCENARIO

h: DESCRIPTION

i: STILL IMAGE

j: LOW-RESOLUTION MOVING IMAGE

k: HIGH-RESOLUTION MOVING IMAGE

l: TIME

m: EDIT EFFECT

n: SUPERIMPOSE

o: NOTE

p: CUT (K2)

q: INTENTION (K3)

r: EDITED VIDEO (K10)

s: EDITED AUDIO (K11)

t: EDITED DATA (K12)

Fig. 14

a: PLANNING AND COMPOSITION GP

b: PLANNING AND COMPOSITION

c: MATERIAL GATHERING GP

d: OFFICE WORK GP

e: EQUIPMENT GP

f: INFORMATION GP

g: SPEECH GP

h: CG/SI GP

i: EDITING GP

j: PERFORMER GP

k: MATERIAL GP

l: STORAGE GP

m: PREPARATION FOR MATERIAL GATHERING

n: STUDY OF RELATED INFORMATION

o: ANALYSIS OF CONTENT

p: ANALYSIS OF CONTENT

q: ANALYSIS OF CONTENT

r: TENTATIVE PROCUREMENT OF VIDEO AND MUSIC

s: MATERIAL GATHERING PROCEDURE

t: PROCUREMENT OF EQUIPMENT

u: PRODUCTION OF SPEECH DRAFT

v: PRODUCTION OF EDIT INSTRUCTION

w: PRELIMINARY INSPECTION

x: PRODUCTION OF CG/SI DRAFT

y: SELECTION OF PERFORMER AND ANCHORMAN

z: CHECK

A: MATERIAL GATHERING

B: PROCUREMENT OF EQUIPMENT

C: FINALIZING SPEECH DRAFT

D: MODIFICATION OF EDIT INSTRUCTION

E: MODIFICATION OF VIDEO AND MUSIC

F: OFF-LINE EDITING/TRIAL VIEW

G: PRODUCTION OF CG/SI

H: RECORDING OF NARRATION

I: FINAL CHECK OF COMPLETE PACKET

J: EDIT

K: STORAGE OF DOCUMENT

L: STORAGE OF COMPLETE PACKET

[Name of Document] ABSTRACT

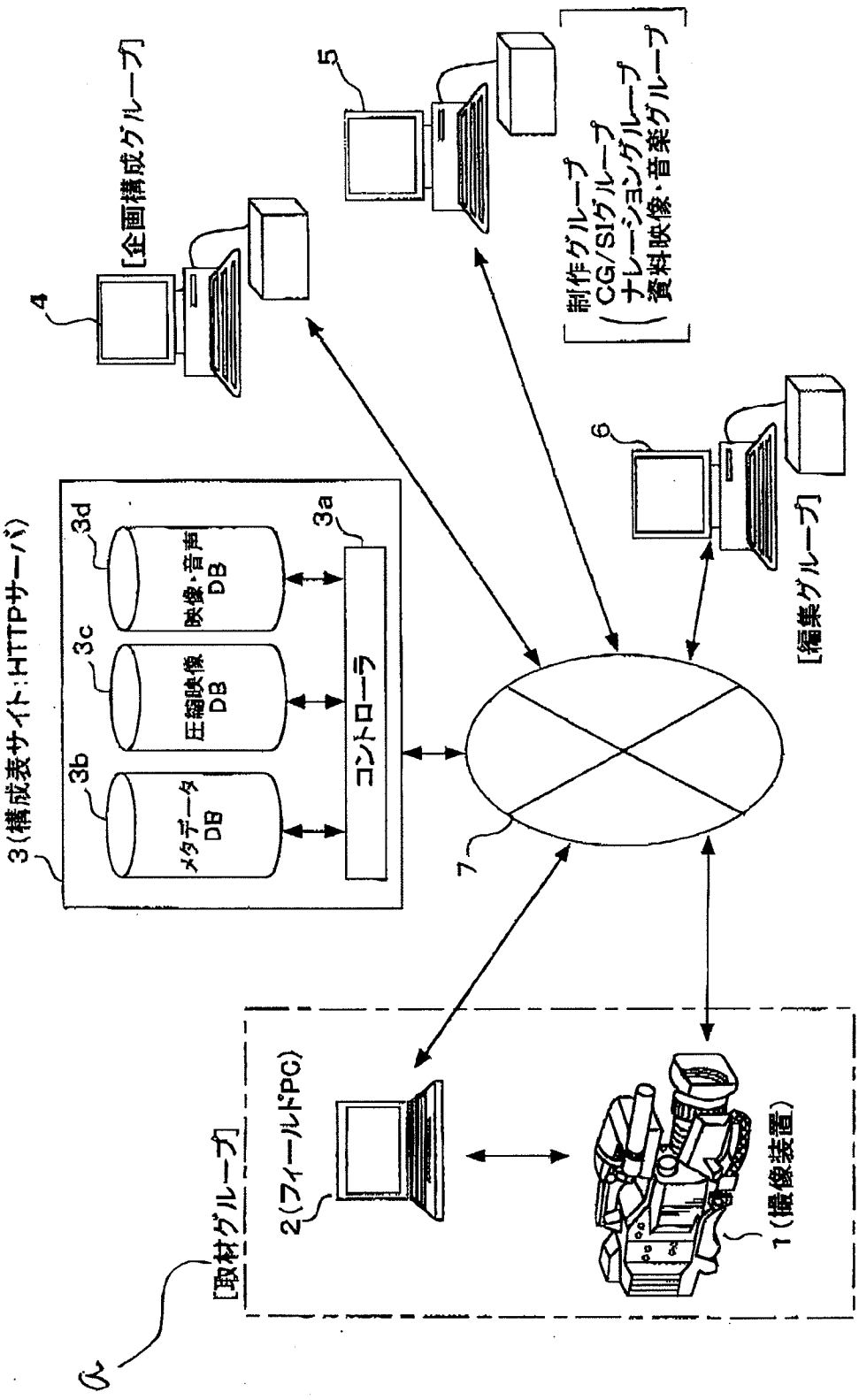
[Abstract]

[Object] To make a video program production system to be efficient and flexible.

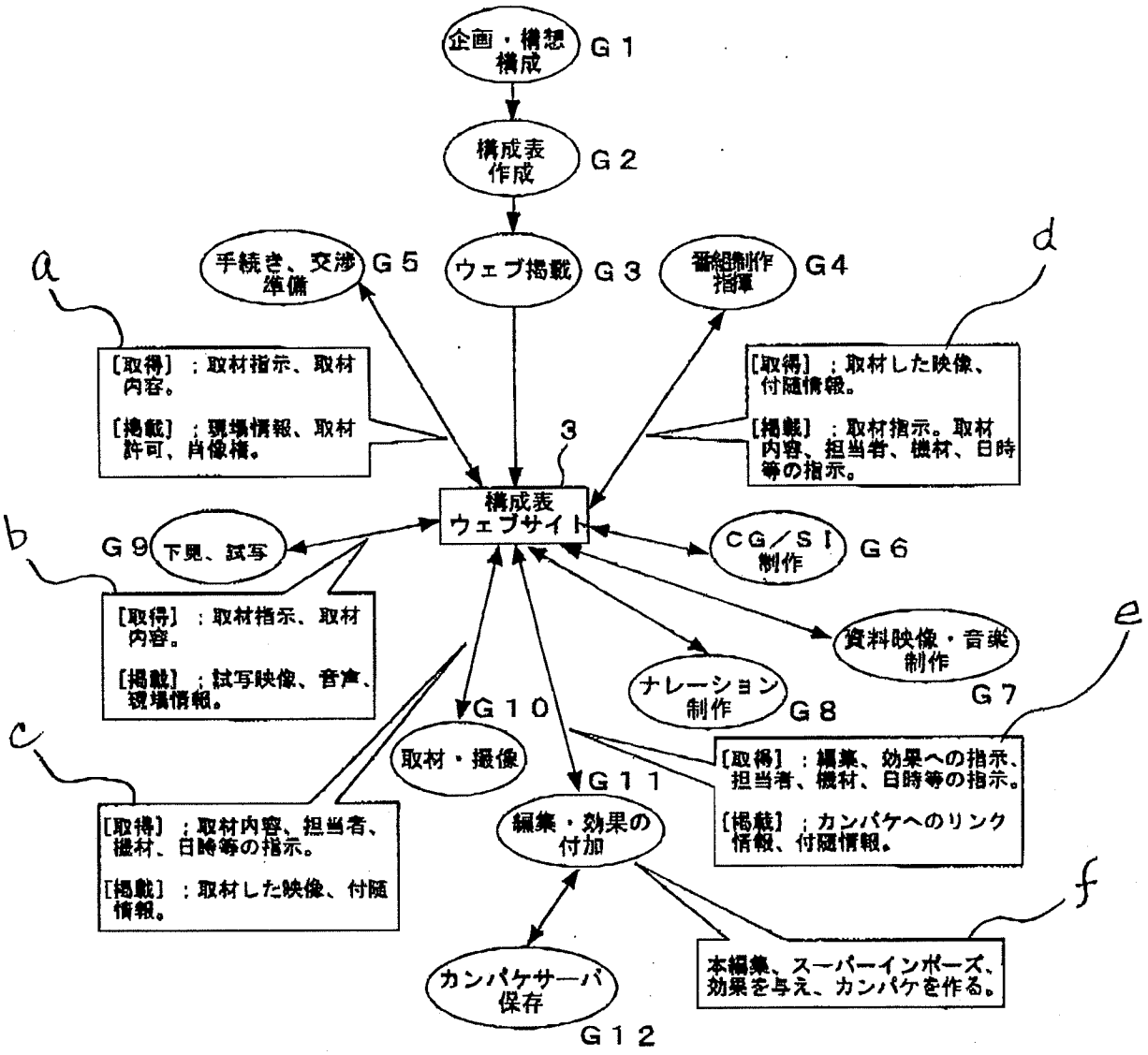
[Solving Means] For viewing, a composition table providing apparatus provides each terminal with composition table data in which items required for the production of the video program are arranged and a variety of information is described in the items. Each terminal, namely, each terminal of each work group is permitted to view the composition table data. Each work group views the composition table data any time in time of need, and the work group can learn the content, described in the composition table data, such as instructions for work, and work results of other groups. Based on the content, the work group can perform required jobs.

[Selected Figure] Fig. 2

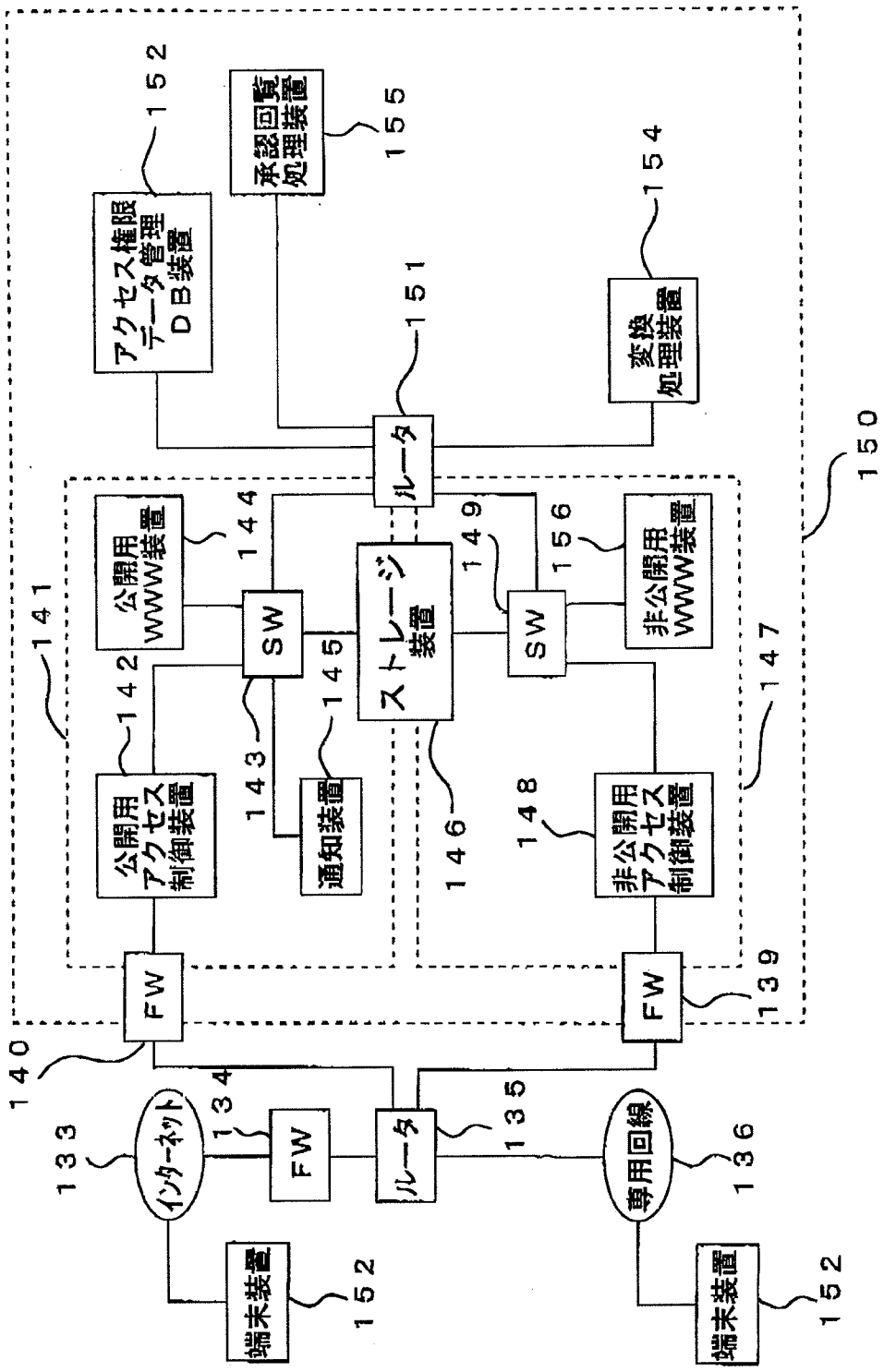
【書類名】　図面
【図１】


[企画構成グループ]
4
5
制作グループ
CG/SIグループ
ナレーショングループ
資料映像・音楽グループ
6
[編集グループ]
3(構成表サイト:HTTPサーバ)
3d
映像・音声 DB
3a
3c
圧縮映像 DB
コントローラ
3b
メタデータ DB
7
[取材グループ]
2(フィールドPC)
1(撮像装置)
a

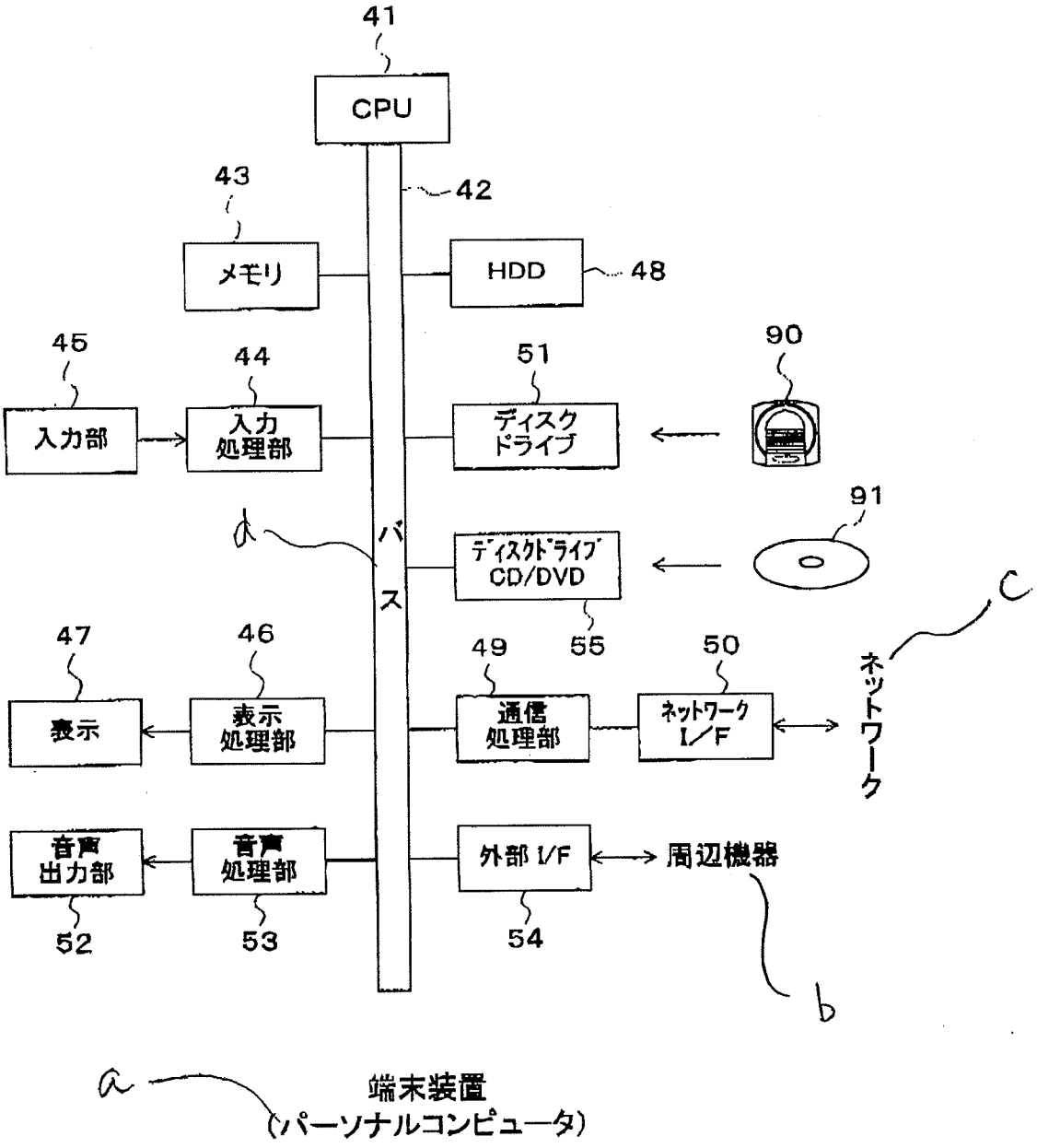
【図２】


企画・構想構成
G１
構成表作成
G２
手続き、交渉準備
G５
ウェブ掲載
G３
番組制作指導
G４
a
[取得]：取材指示、取材内容。
[掲載]：現場情報、取材許可、肖像権。
d
[取得]：取材した映像、付随情報。
[掲載]：取材指示。取材内容、担当者、機材、日時等の指示。
3
構成表ウェブサイト
b
G９
下見、試写
CG／SI制作
G６
[取得]：取材指示、取材内容。
[掲載]：試写映像、音声、現場情報。
資料映像・音楽制作
G７
e
ナレーション制作
G８
G１０
取材・撮像
c
[取得]：取材内容、担当者、機材、日時等の指示。
[掲載]：取材した映像、付随情報。
G１１
編集・効果の付加
[取得]：編集、効果への指示、担当者、機材、日時等の指示。
[掲載]：カンパケへのリンク情報、付随情報。
f
本編集、スーパーインポーズ、効果を与え、カンパケを作る。
カンパケサーバ保存
G１２

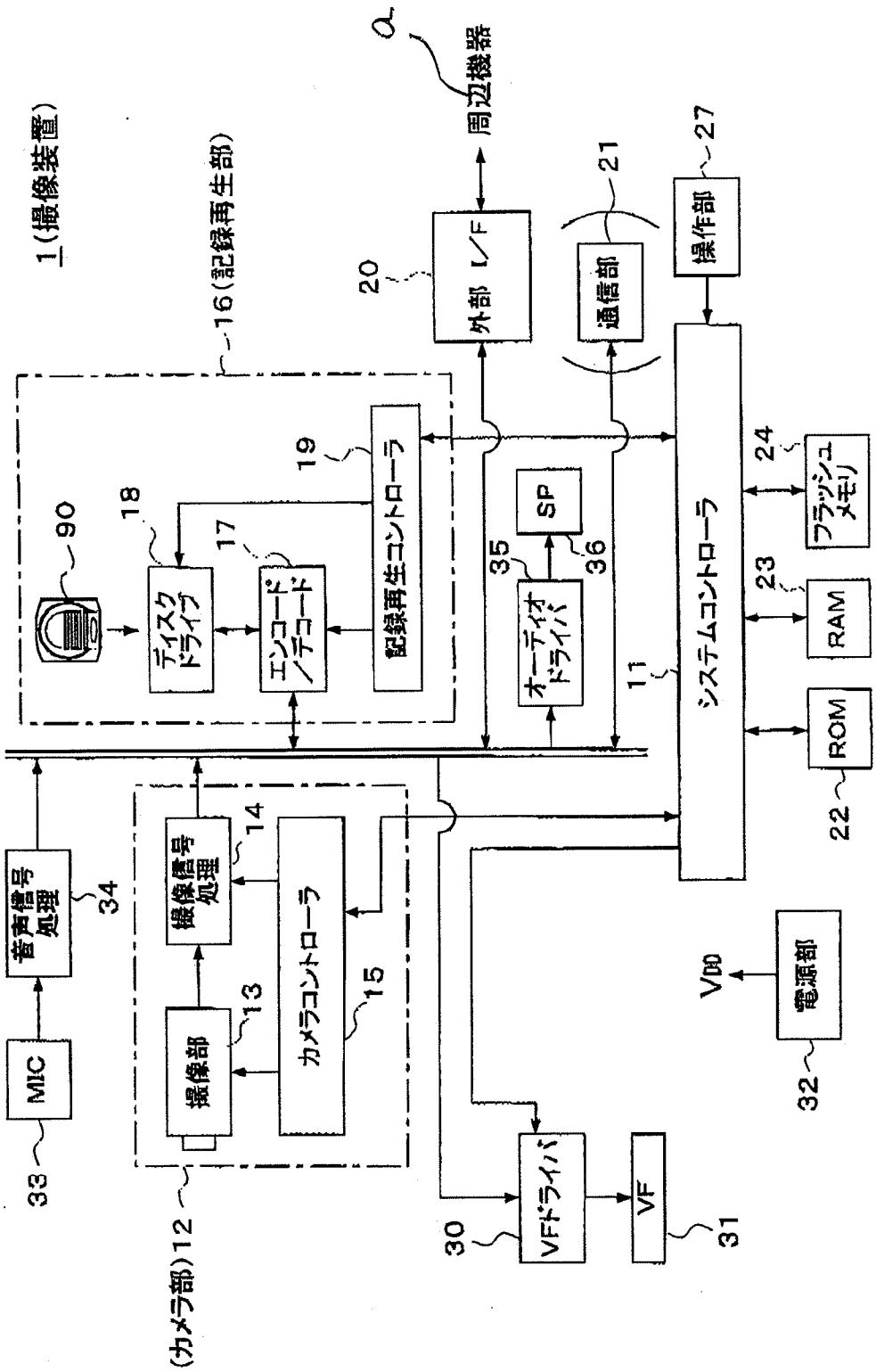
【図３】


アクセス権限データ管理DB装置
152
承認回覧処理装置
155
154
変換処理装置
151
ルータ
150
141
公開用WWW装置
144
SW
145
ストレージ装置
149
SW
156
非公開用WWW装置
142
143
通知装置
146
148
公開用アクセス制御装置
非公開用アクセス制御装置
147
FW
139
FW
140
133
インターネット
134
FW
ルータ
135
専用回線
136
端末装置
152
端末装置
152

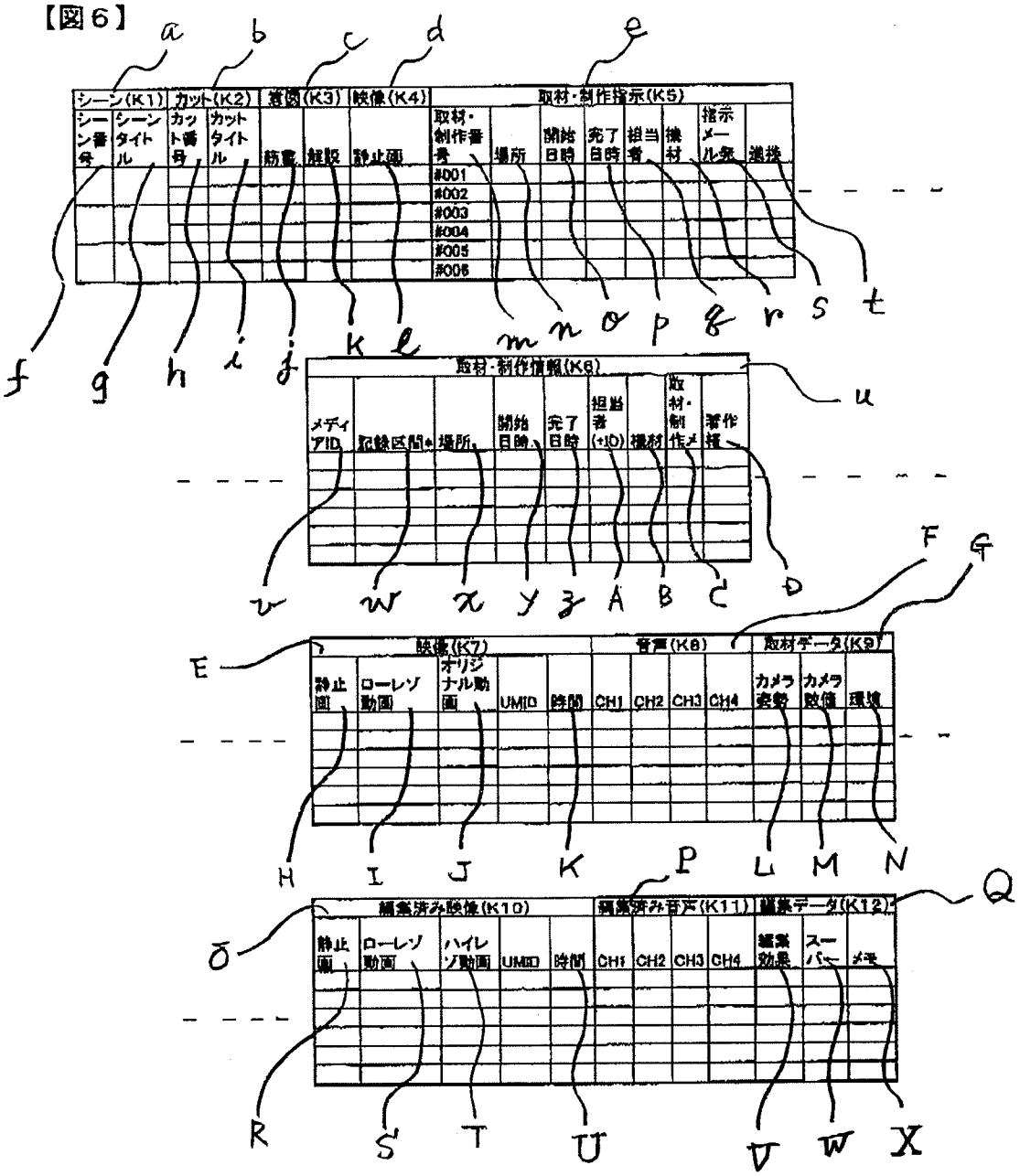
【図４】


41
CPU
43
メモリ
42
HDD
48
45
入力部
44
入力処理部
51
ディスクドライブ
90
91
ディスクドライブ CD/DVD
55
バス
47
表示
46
表示処理部
49
通信処理部
50
ネットワークI/F
ネットワーク
C
音声出力部
52
音声処理部
53
外部I/F
54
周辺機器
b
a
端末装置
(パーソナルコンピュータ)

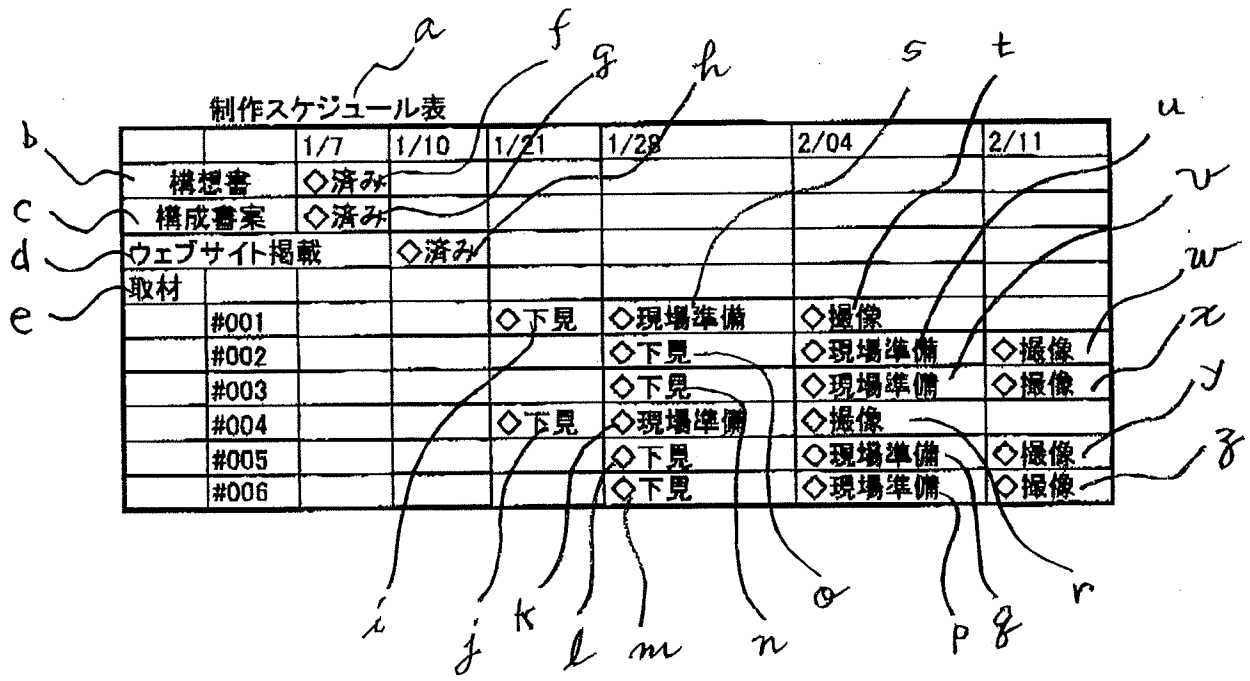
【図５】


1(撮像装置)
16(記録再生部)
2
周辺機器
20
外部 I/F
21
通信部
27
操作部
90
18
17
19
ディスクドライブ
エンコード/デコード
記録再生コントローラ
SP
35
36
オーディオドライバ
24
フラッシュメモリ
23
RAM
11
システムコントローラ
ROM
22
音声信号処理
34
MIC
33
撮像信号処理
14
撮像部
13
カメラコントローラ
15
(カメラ部)12
VDD
電源部
32
VFドライバ
30
VF
31

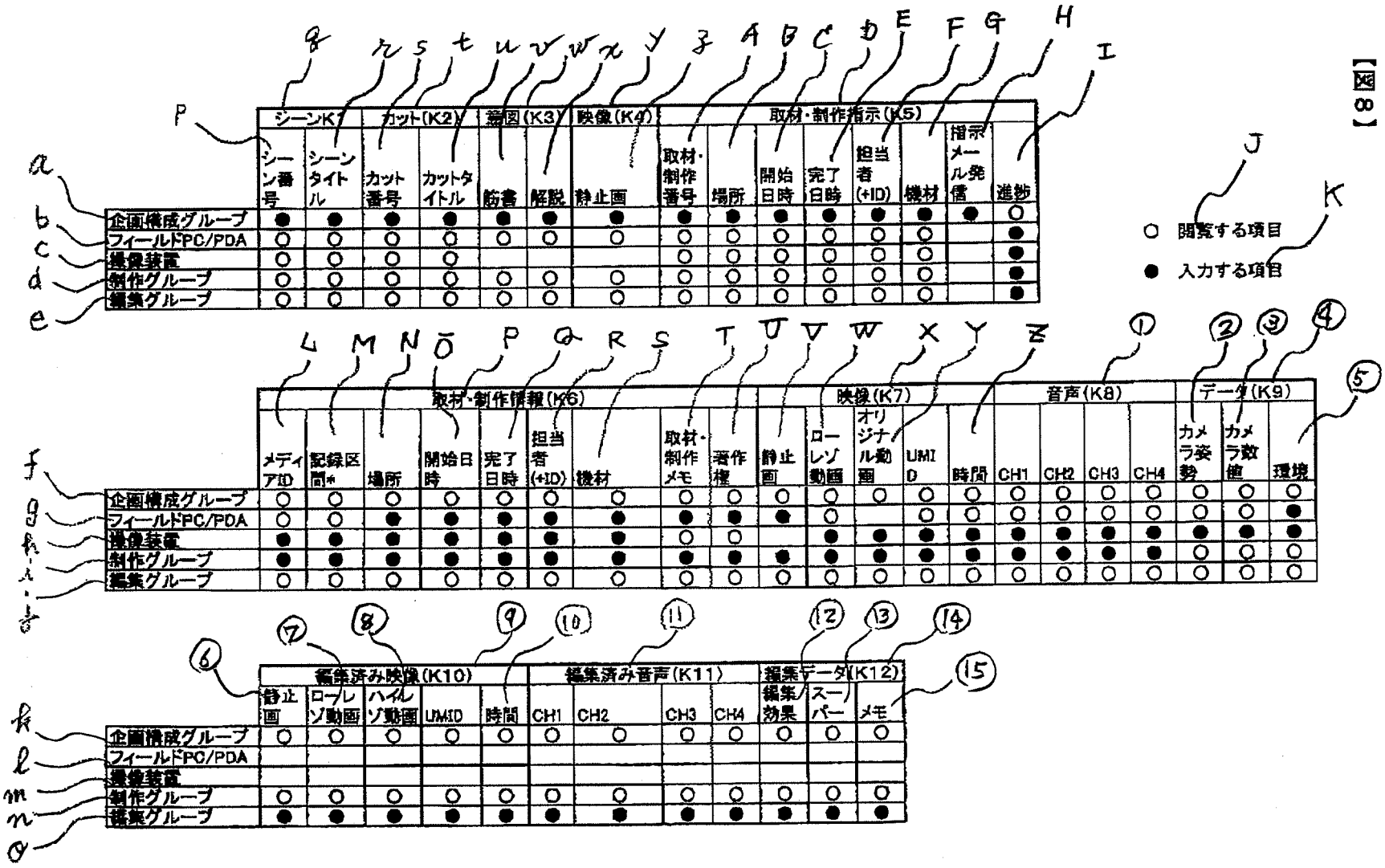
【図６】


a
b
c
d
e
シーン(K1)
シーン番号
シーンタイトル
カット(K2)
カット番号
カットタイトル
音関(K3)
筋電
脳波
映像(K4)
静止画
取材・制作指示(K5)
取材・制作番号
場所
開始日時
完了日時
担当者
機材
指示メール発
連携
#001
#002
#003
#004
#005
#006
f
g
h
i
j
k
l
m
n
o
p
q
r
s
t
取材・制作情報(K6)
u
メディアID
取録区間
場所
開始日時
完了日時
担当者(+ID)
機材
取材・制作メ
著作権
v
w
x
y
z
A
B
C
D
E
F
G
映像(K7)
音声(K8)
取材データ(K9)
静止画
ローレゾ動画
オリジナル動画
UMID
時間
CH1
CH2
CH3
CH4
カメラ姿勢
カメラ数値
環境
H
I
J
K
P
L
M
N
Q
O
編集済み映像(K10)
編集済み音声(K11)
編集データ(K12)
ハイレゾ動画
編集効果
スーパー
メモ
R
S
T
U
V
W
X

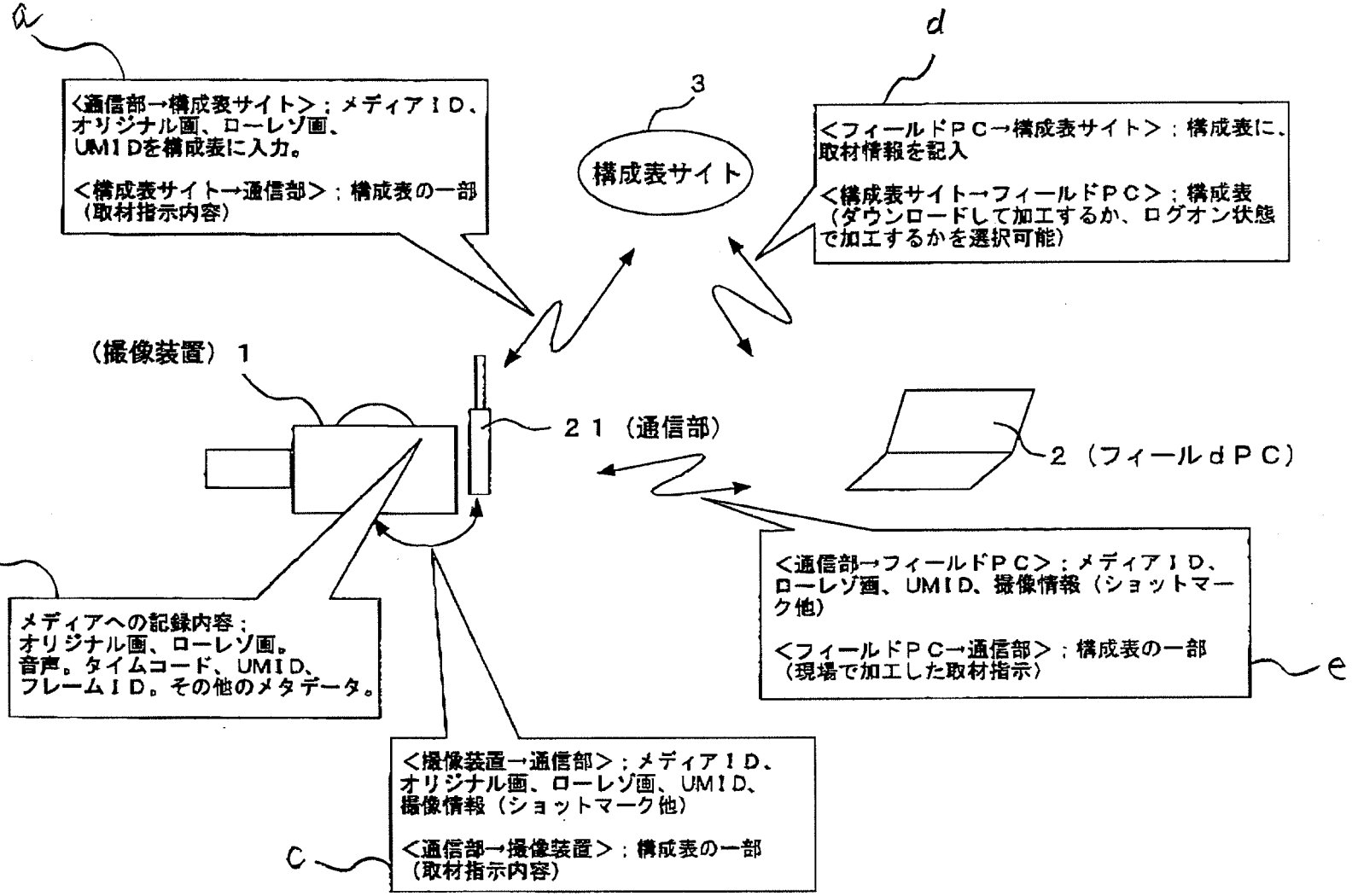
【図７】


制作スケジュール表
1/7
1/10
1/21
1/28
2/04
2/11
構想書
◇済み
構成書案
◇済み
ウェブサイト掲載
◇済み
取材
#001
◇下見
◇現場準備
◇撮像
#002
◇下見
◇現場準備
◇撮像
#003
◇下見
◇現場準備
◇撮像
#004
◇下見
◇現場準備
◇撮像
#005
◇下見
◇現場準備
◇撮像
#006
◇下見
◇現場準備
◇撮像
a
b
c
d
e
f
g
h
i
j
k
l
m
n
o
p
q
r
s
t
u
v
w
x
y
z

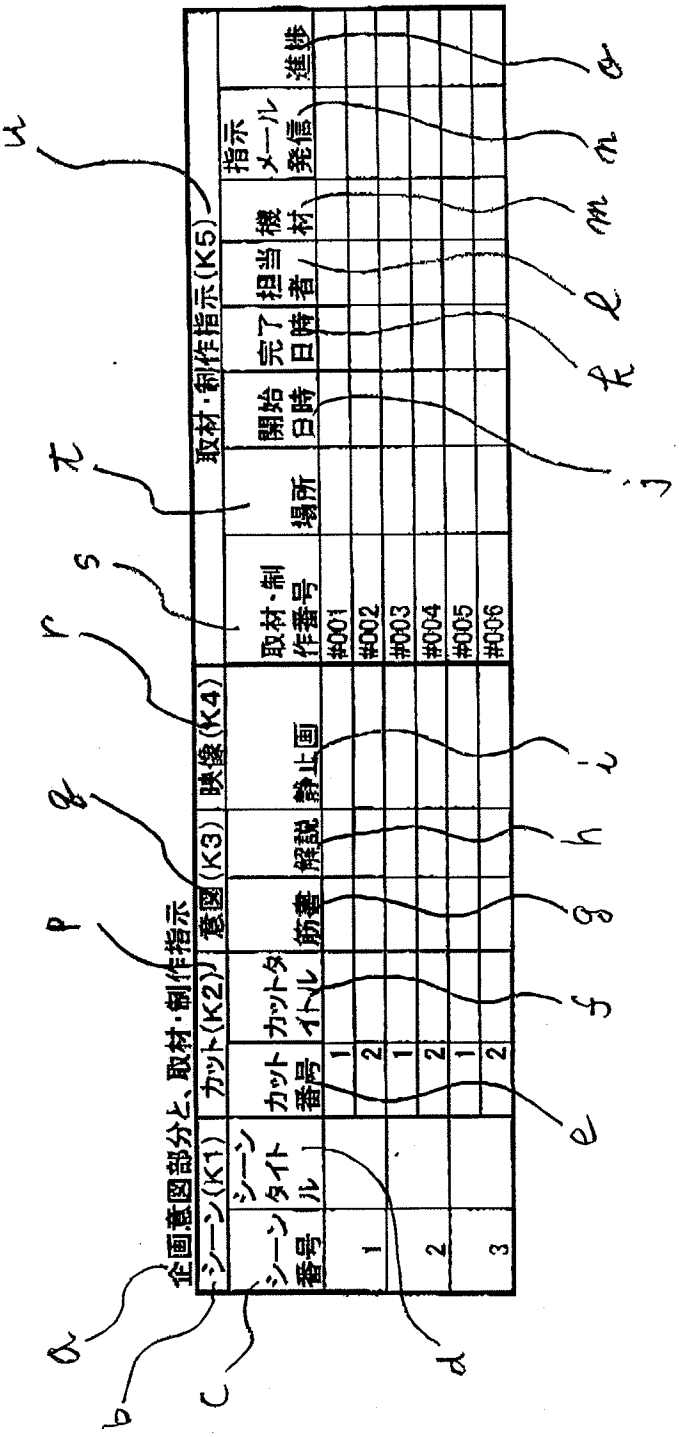
【図8】


○ 閲覧する項目
● 入力する項目
シーンK1
カットK2
絵図K3
映像K4
取材・制作指示K5
取材・制作情報K6
映像K7
音声K8
データK9
編集済み映像K10
編集済み音声K11
編集データK12
企画構成グループ
フィールドPC/PDA
撮像装置
制作グループ
編集グループ

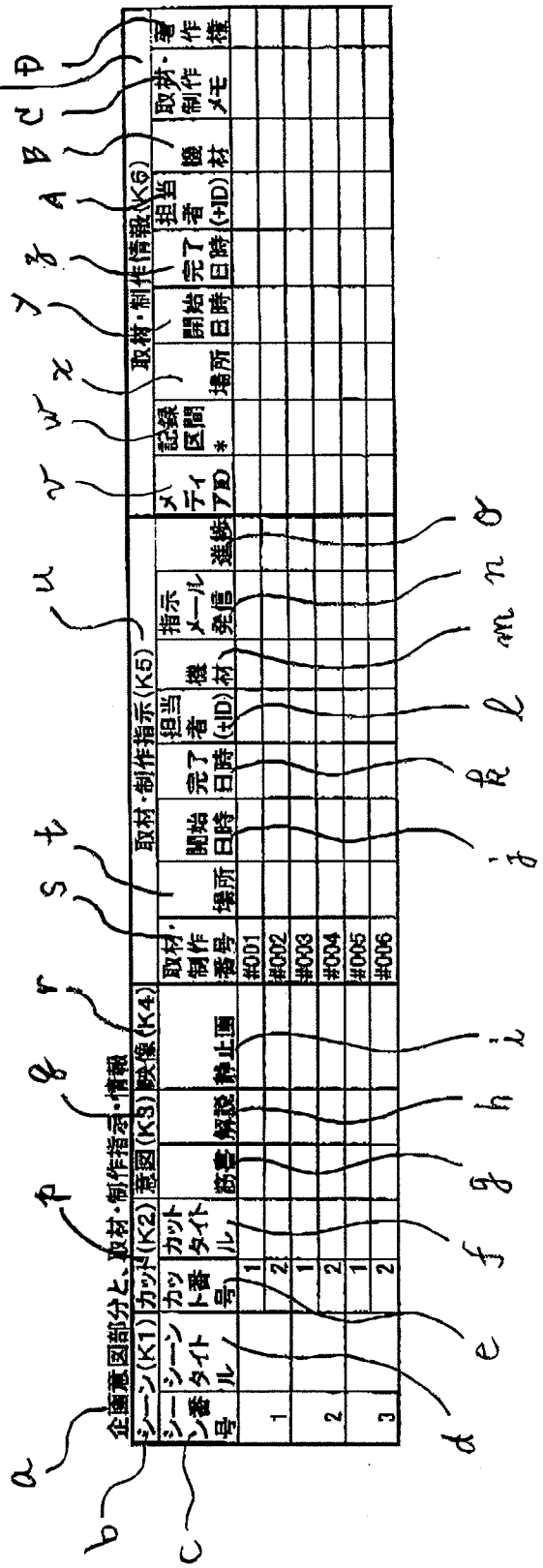
【図９】


a
<通信部→構成表サイト>；メディアＩＤ、
オリジナル画、ローレゾ画、
ＵＭＩＤを構成表に入力。
<構成表サイト→通信部>；構成表の一部
（取材指示内容）
3
構成表サイト
d
<フィールドＰＣ→構成表サイト>；構成表に、
取材情報を記入
<構成表サイト→フィールドＰＣ>；構成表
（ダウンロードして加工するか、ログオン状態
で加工するかを選択可能）
（撮像装置）１
２１（通信部）
２（フィールｄＰＣ）
b
メディアへの記録内容；
オリジナル画、ローレゾ画。
音声。タイムコード、ＵＭＩＤ、
フレームＩＤ。その他のメタデータ。
<通信部→フィールドＰＣ>；メディアＩＤ、
ローレゾ画、ＵＭＩＤ、撮像情報（ショットマー
ク他）
<フィールドＰＣ→通信部>；構成表の一部
（現場で加工した取材指示）
e
<撮像装置→通信部>；メディアＩＤ、
オリジナル画、ローレゾ画、ＵＭＩＤ、
撮像情報（ショットマーク他）
c
<通信部→撮像装置>；構成表の一部
（取材指示内容）

【図１０】

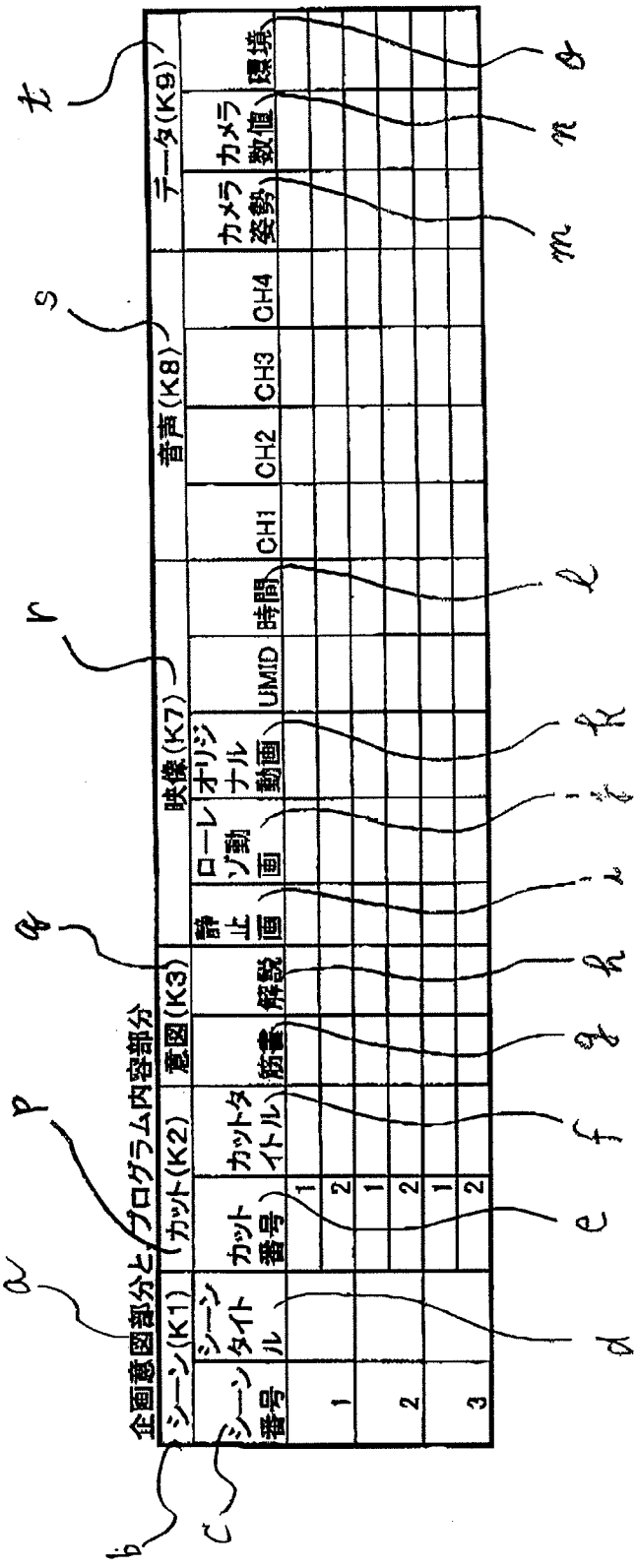

企画意図部分と、取材・制作指示
シーン(K1)
カット(K2)
意図(K3)
映像(K4)
取材・制作指示(K5)
シーン番号
シーンタイトル
カット番号
カットタイトル
筋書
解説
静止画
取材・制作番号
撮影場所
開始日時
完了日時
担当者
機材
指示メール発信
進捗
#001
#002
#003
#004
#005
#006

【図１１】

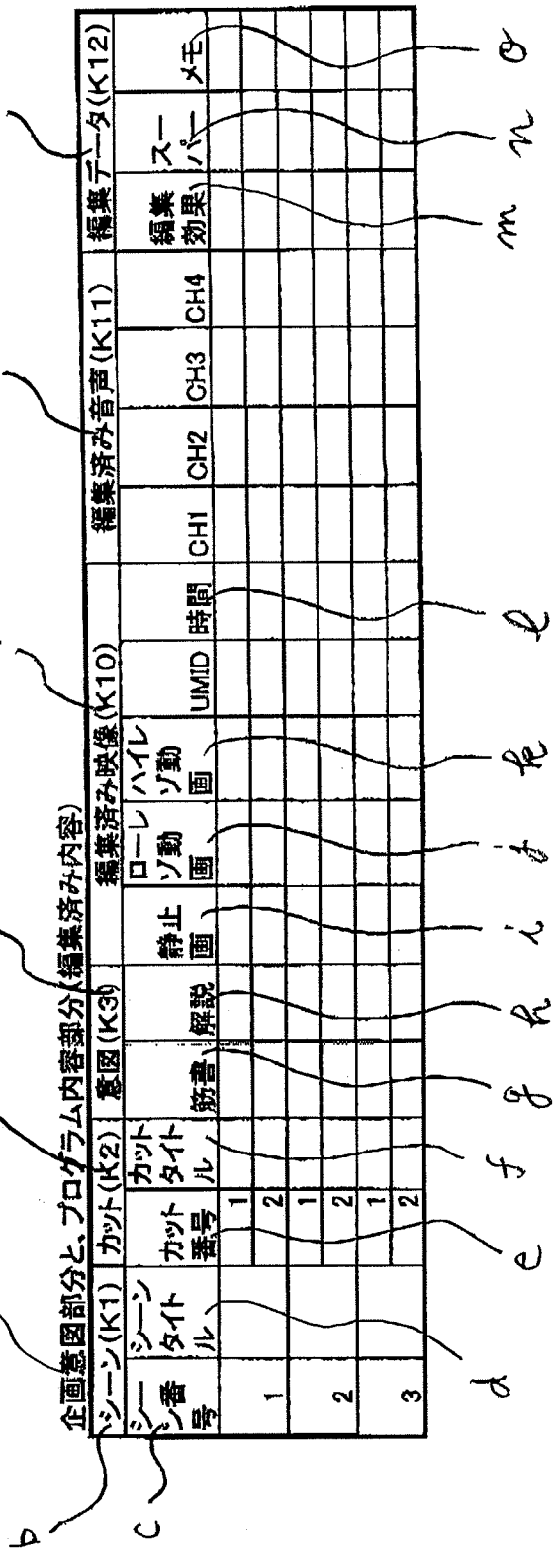


企画意図部分と、取材・制作指示・情報							取材・制作指示(K5)								取材・制作情報(K6)								
シーン(K1)	カット(K2)	意図(K3)	映像(K4)																				
シーン番号	シーンタイトル	カット番号	カットタイトル	説明	解説	静止画	取材・制作番号	場所	開始日時	完了日時	担当者(+ID)	機材	指示メール発信	進捗	メディアID	記録区間*	場所	開始日時	完了日時	担当者(+ID)	機材	取材・制作メモ	著作権
1		1					#001																
		2					#002																
2		1					#003																
		2					#004																
3		1					#005																
		2					#006																

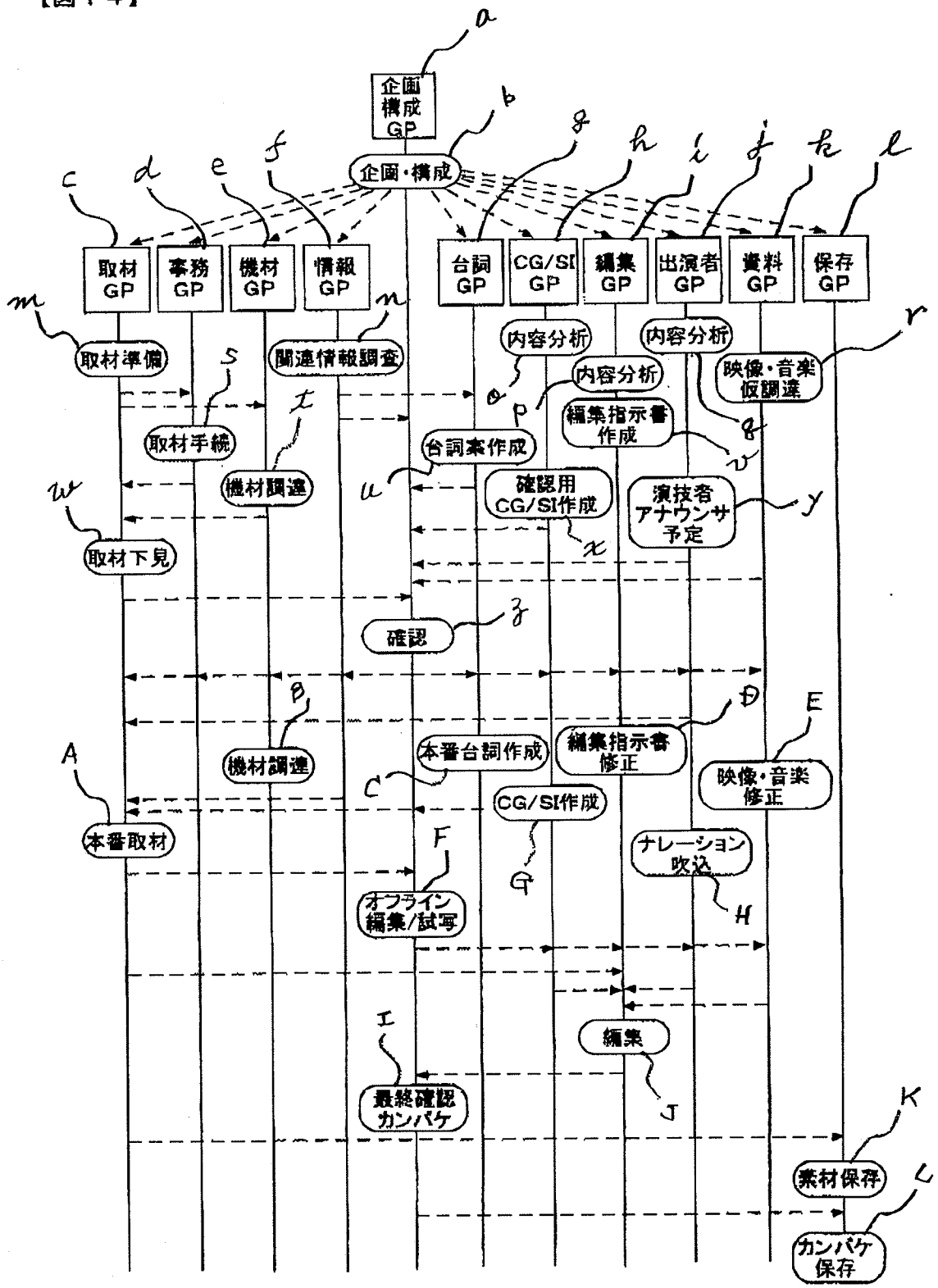
【図１２】


企画意図部分とプログラム内容部分
シーン(K1)
シーン番号
シーンタイトル
カット(K2)
カット番号
カットタイトル
意図(K3)
筋書
解説
映像(K7)
静止画
ローレゾ動画
オリジナル動画
UMID
時間
音声(K8)
CH1
CH2
CH3
CH4
データ(K9)
カメラ姿勢
カメラ数値
環境
a
b
c
d
e
f
g
h
i
j
k
l
m
n
o
p
q
r
s
t

【図１３】


企画意図部分と、プログラム内容部分(編集済み内容)
シーン(K1)
シーン番号
シーンタイトル
カット(K2)
カット番号
カットタイトル
意図(K3)
筋書
解説
編集済み映像(K10)
静止画
ローレソ動画
ハイレソ動画
UMID
時間
編集済み音声(K11)
CH1
CH2
CH3
CH4
編集データ(K12)
編集効果
スーパー
メモ
1
2
3
a
b
c
d
e
f
g
h
i
j
k
l
m
n
o
p
q
r
s
t

【図１４】


企画構成GP
企画・構成
取材GP
事務GP
機材GP
情報GP
台詞GP
CG/SIGP
編集GP
出演者GP
資料GP
保存GP
取材準備
関連情報調査
内容分析
内容分析
内容分析
映像・音楽仮調達
取材手続
機材調達
台詞案作成
確認用CG/SI作成
編集指示書作成
演技者アナウンサ予定
取材下見
確認
機材調達
本番台詞作成
編集指示書修正
映像・音楽修正
本番取材
CG/SI作成
ナレーション吹込
オフライン編集/試写
編集
最終確認カンパケ
素材保存
カンパケ保存